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(54) Title: HUMAN STROKE GENE

(57) Abstract: A role of the human PDE4D gene in stroke is disclosed. Methods for diagnosis, prediction of clinical course and treatment for stroke using polymorphisms in the PDE4D gene are also disclosed.

## HUMAN STROKE GENE

## RELATED APPLICATION

This is a continuation of U.S. Application \_\_\_\_\_ (2345.2010-003), which was filed on February 4, 2002, which is a continuation-in-part of U.S.

- 5 Application No. 09/811,352, filed March 19, 2001. The entire teachings of the above applications are incorporated herein by reference.

## BACKGROUND OF THE INVENTION

- Stroke is a major health problem in western societies. It is the leading cause of disability, the second leading cause of dementia and the third most common cause of death (Bonita, R., *Lancet* 339:342 (1992)). As it is more common in the elderly, the public health impact of stroke will increase in the next decades with growing life expectancy. Almost 1 out of 4 men and nearly 1 out of 5 women aged 45 years will have a stroke if they live to their 85th year (Bonita, R., *Lancet* 339:342 (1992)). Strategies to diminish the impact of stroke includes prevention and treatment with
- 15 thrombolytics and possibly neuroprotective agents. The success of preventive measures will depend on the identification of risk factors and means to modulate their risk.

- The clinical phenotype of stroke is complex but can be broadly divided into ischemic and hemorrhagic stroke. The majority of strokes (80 to 90%) are ischemic, caused by obstruction of blood flow through extra- or intracranial vessels (Mohr, J.P., *et al.*, *Neurology*, 28:754-762 (1978); Caplan, L.R., *In Stroke, A Clinical Approach* (Butterworth-Heinemann, Stoneham, MA, ed 3, 1993)). The remainder are hemorrhagic strokes (10-20%), resulting from ruptures of intracranial vessels. Ischemic stroke can be further subdivided into large vessel occlusive disease, small
- 25 vessel occlusive disease, and cardiogenic stroke. Transient ischemic attack (TIA), although not defined as a stroke because the signs and symptoms (which are the same as for stroke) last for a short period of time (less than 24 hours, usually 5 to 20



minutes), indicates a serious underlying risk that a stroke may follow, and it is believed that the same pathophysiologic mechanisms are responsible for TIA and ischemic stroke (Caplan, L.R., *In Stroke, A Clinical Approach* (Butterworth-Heinemann, Stoneham, MA, ed 3, 1993)).

- 5           The predominant risk factor for all types of stroke is hypertension (Thompson, D.W. and A.J. Furlan, *Neurosurg. Clin. N. Am.*, 8:265-269 (1997); Agnarsson, U., *et al.*, *Ann. Intern. Med.*, 130:987 (1999)). Hypertension is in itself a complex disease as are the other known secondary risk factors, diabetes and hyperlipidemia. In addition, there are environmental risk factors such as smoking.
- 10       Stroke is therefore considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple risk factors, genetic and environmental.

- The identification of genetic determinants of common diseases such as stroke, which may result from an interplay among multiple genes and between genes and environmental risk factors, has proven to be a difficult task. Studies of the
- 15       genetic contribution to stroke have mainly focused on rare Mendelian diseases where stroke is a part of the phenotype or on finding association with possible candidate genes such as genes contributing to hypertension or lipid metabolism. Several genes have been identified that play roles in the pathogenesis of rare stroke syndromes such as the *Notch3* gene in CADASIL (cerebral autosomal dominant arteriopathy
- 20       with subcortical infarctions and leukoencephalopathy) (Tournier-Lasserre, E., *et al.*, *Nat. Genet.*, 3:256-259 (1993); Joutel, A., *et al.*, *Nature*, 383:707 (1996)), *Cystatin C* in the Icelandic type of hereditary cerebral hemorrhage with amyloidosis (Palsdottir, A., *et al.*, *Lancet*, 2:603-604 (1998)), *APP* in the Dutch type of hereditary cerebral hemorrhage (Levy, E., *et al.*, *Science*, 248:1124 (1990)), and the
- 25       *KRIT1* gene in patients with hereditary cavernous angioma (Grunel, M., *et al.*, *Proc. Natl. Acad. Sci. U.S.A.*, 92:6620-6624 (1995); Laberge-le Couteulx, S., *et al.*, *Nat. Genet.* 23:189 (1999); Sahoo, T., *et al.*, *Hum. Mol. Genet.* 8:2325 (1999)).

- In addition to family history information for stroke, it is desirable to develop diagnostic methods for the early diagnosis of the disease or predisposition for the
- 30       development of stroke. Better means for predicting and identifying stroke should lead to better prophylactic and treatment regimens.

## SUMMARY OF THE INVENTION

As described herein, it has been discovered that the gene that encodes phosphodiesterase 4D (hereinafter referred to as "PDE4D") has been correlated through human linkage studies to stroke, particularly ischemic strokes and transient  
5 ischemic attacks. Five new exons, here referred to as 4D7-1, 4D7-2, 4D7-3, 4D6 and 4D8 have been identified. Three novel splice variants have also been identified (see Fig. 4).

The present invention relates to isolated nucleic acid molecules comprising the PDE4D gene. In one embodiment, the isolated nucleic acid molecule comprises  
10 a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Tables 9 and 10, and the complement thereof. The invention further relates to a nucleic acid molecule which hybridizes under high stringency conditions to a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 which may optionally  
15 comprise at least one polymorphism as shown in Tables 9 and 10, and the complement thereof. The invention additionally relates to isolated nucleic acid molecules (e.g., cDNA molecules) encoding a PDE4D polypeptide (e.g., encoding SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14 or another splicing variant of PDE4D polypeptide which includes a polymorphic site and/or novel exon selected from the  
20 group consisting of 4D6, 4D7-1, 4D7-2, 4D7-3 and 4D8).

The invention further provides a method for assaying a sample for the presence of a nucleic acid molecule comprising all or a portion of PDE4D in a sample, comprising contacting said sample with a second nucleic acid molecule comprising a nucleotide sequence encoding a PDE4D polypeptide (e.g., SEQ ID  
25 NO: 1 or the complement of SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Tables 9 and 10; a nucleotide sequence encoding SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14 which may optionally comprise at least one polymorphism as shown in Tables 9 and 10, or another splicing variant of PDE4D polypeptide which includes a polymorphic site and/or exon selected from  
30 the group consisting of 4D6, 4D7-1, 4D7-2, 4D7-3 and 4D8), or a fragment or derivative thereof, under conditions appropriate for selective hybridization. The

invention additionally provides a method for assaying a sample for the level of expression of a PDE4D polypeptide, or fragment or derivative thereof, comprising detecting (directly or indirectly) the level of expression of the PDE4D polypeptide, fragment or derivative thereof.

5           The invention also relates to a vector comprising an isolated nucleic acid molecule of the invention operatively linked to a regulatory sequence, as well as to a recombinant host cell comprising the vector. The invention also provides a method for preparing a polypeptide encoded by an isolated nucleic acid molecule described herein (an PDE4D polypeptide), comprising culturing a recombinant host cell of the  
10   invention under conditions suitable for expression of said nucleic acid molecule.

          The invention further provides an isolated polypeptide encoded by isolated nucleic acid molecules of the invention (e.g., PDE4D polypeptide), as well as fragments or derivatives thereof. In a particular embodiment, the polypeptide comprises the amino acid sequence of SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO:  
15   4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 12 or SEQ ID NO: 14 and containing at least one polymorphism described herein, particularly a polymorphism in all or a portion of exon 4D1, such as a SNP at 1,591,306, or one or a combination of SNPs in Table 5B. In another embodiment, the polypeptide is another splicing variant of an  
20   PDE4D polypeptide, particularly a splicing variant containing all or a portion of exon selected from the group consisting of, 4D7-1, 4D7-2, 4D7-3 and 4D8. The invention also relates to an isolated polypeptide comprising an amino acid sequence which is greater than about 90 percent identical to the amino acid sequence of SEQ  
25   ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 12 or SEQ ID NO: 14 and containing at least one polymorphism described herein, particularly a polymorphism in all or a portion of exon 4D1, such as a SNP at 1,591,306, or one or a combination of SNPs in Table 5B; preferably about 95 percent identical.

          The invention also relates to an antibody, or an antigen-binding fragment  
30   thereof, which selectively binds to a polypeptide of the invention, as well as to a method for assaying the presence of a polypeptide encoded by an isolated nucleic

acid molecule of the invention in a sample, comprising contacting said sample with an antibody which specifically binds to the encoded polypeptide.

The invention further relates to methods of diagnosing a predisposition to stroke. The methods of diagnosing a predisposition to stroke in an individual  
5 include detecting the presence of a mutation in PDE4D, as well as detecting alterations in expression of an PDE4D polypeptide, such as the presence of different splicing variants of PDE4D polypeptides. The alterations in expression can be quantitative, qualitative, or both quantitative and qualitative. The methods of the invention allow the accurate diagnosis of stroke at or before disease onset, thus  
10 reducing or minimizing the debilitating effects of stroke.

The invention additionally relates to an assay for identifying agents which alter (e.g., enhance or inhibit) the activity or expression of one or more PDE4D polypeptides. For example, a cell, cellular fraction, or solution containing an PDE4D polypeptide or a fragment or derivative thereof, can be contacted with an  
15 agent to be tested, and the level of PDE4D polypeptide expression or activity can be assessed. The activity or expression of more than one PDE4D polypeptides can be assessed concurrently (e.g., the cell, cellular fraction, or solution can contain more than one type of PDE4D polypeptide, such as different splicing variants, and the levels of the different polypeptides or splicing variants can be assessed).

20 In another embodiment, the invention relates to assays to identify polypeptides which interact with one or more PDE4D polypeptides. In a yeast two-hybrid system, for example, a first vector is used which includes a nucleic acid encoding a DNA binding domain and also an PDE4D polypeptide, splicing variant, or fragment or derivative thereof, and a second vector is used which includes a  
25 nucleic acid encoding a transcription activation domain and also a nucleic acid encoding a polypeptide which potentially may interact with the PDE4D polypeptide, splicing variant, or fragment or derivative thereof (e.g., a PDE4D polypeptide binding agent or receptor). Incubation of yeast containing both the first vector and the second vector under appropriate conditions allows identification of polypeptides  
30 which interact with the PDE4D polypeptide or fragment or derivative thereof, and thus can be agents which alter the activity of expression of an PDE4D polypeptide.

Agents that enhance or inhibit PDE4D polypeptide expression or activity are also included in the current invention, as are methods of altering (enhancing or inhibiting) PDE4D polypeptide expression or activity by contacting a cell containing PDE4D and/or polypeptide, or by contacting the PDE4D polypeptide, with an agent  
5 that enhances or inhibits expression or activity of PDE4D or polypeptide.

Additionally, the invention pertains to pharmaceutical compositions comprising the nucleic acids of the invention, the polypeptides of the invention, and/or the agents that alter activity of PDE4D polypeptide. The invention further pertains to methods of treating stroke, by administering PDE4D therapeutic agents,  
10 such as nucleic acids of the invention, polypeptides of the invention, the agents that alter activity of PDE4D polypeptide, or compositions comprising the nucleic acids, polypeptides, and/or the agents that alter activity of PDE4D polypeptide.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects, features and advantages of the invention  
15 will be apparent from the following more particular description of preferred embodiments of the invention, as illustrated in the accompanying drawings.

Figs. 1A and 1B show two family pedigrees each affected by several of the stroke subtypes, including hemorrhagic stroke.

Figs. 2A, 2B and 2C show the genetic, combined and physical maps for  
20 locating the PDE4D gene using 30 polymorphic markers. For the combined map, all markers have been assigned in the genetic and physical map unless otherwise indicated. (\* indicates markers only assigned in physical map; \*\* indicates markers only assigned in genetic map).

Fig. 3 shows the genetic map of the stroke locus with exons and polymorphic  
25 markers indicated. Markers identified by asterisks show association. The area defined by one drop in lod is approximately 4.6 Mb (approximately 5-6 cM).

Fig. 4 shows schematic representations of PDE4D splice variants. Splice variants 4D6, 4D7 and 4D8 are novel, as well as exons 4D6, 4D7-1, 4D7-2, 4D7-3 and 4D8. Splice variants 4DN1, 4DN2 and 4DN3 (Miro, *et al.*, *Biochem. Biophys.*

*Res. Comm.*, 274:415-421 (2000)), and 4D1, 4D2, 4D3, 4D4 and 4D5 (Bolger *et al.*, *Biochem. J.*, Pt2:539-548 (1997) are known.

Fig. 5 is a schematic representation of the genetic map showing microsatellites and SNP haplotypes within the stroke gene.

5 Figs. 6.1 to 6.351 show the genomic sequence of the human PDE4D gene.

Figs. 7.1 to 7.10 show the amino acid sequences for the isoforms of the PDE4D gene. SEQ ID NO: 2 is D4; SEQ ID NO: 3 is N2; SEQ ID NO: 4 is D5; SEQ ID NO: 5 is N3; SEQ ID NO: 6 is D3; SEQ ID NO: 7 is N1; SEQ ID NO: 8 is D6; SEQ ID NO: 9 is D1; and SEQ ID NO: 10 is D2.

10 Figs. 8A and 8B list all publically available PDE4D2 mRNA's and novel eDNA segments identified by deCODE genetics.

#### DETAILED DESCRIPTION OF THE INVENTION

Extensive genealogical information for a population with population-based lists of patients has been combined with powerful genome sharing methods to map  
15 the first major locus in common stroke. A genome wide scan on patients, related within 6 meiotic events, diagnosed with stroke (ischemic and TIA) and their unaffected relatives has been completed. Locus *STRK1* on chromosome 5q12 has been identified through linkage studies to be associated with stroke. This locus does not correspond to known susceptibility loci for stroke or its risk factors (such as  
20 diabetes, hyperlipidemia and hypertension), and represents the first mapping of a gene for common stroke. Until now there have been no known linkage studies of stroke in humans showing any connection to this region of the chromosome. Based on the linkage studies conducted, Applicants have discovered a direct relationship between the PDE4D gene and stroke. Although the PDE4D gene (i.e., cDNA but  
25 not the genomic sequence) from normal individuals is known, there have been no studies directly investigating PDE4D and stroke. Moreover, there have been no variant forms reported that have been associated with stroke. The full sequence of the PDE4D gene and splice variants are reported herein. Additional single nucleotide polymorphisms are reported in Tables 9 and 10 and may not be shown in  
30 SEQ ID NO: 1.

## NUCLEIC ACIDS OF THE INVENTION

Accordingly, the invention pertains to an isolated nucleic acid molecule comprising the human PDE4D gene having at least one nucleotide alteration and correlated with incidence of stroke. The term, "PDE4D or variant PDE4D", as used  
5 herein, refers to an isolated nucleic acid molecule on chromosome 5q12 having at least one altered nucleotide that is associated with a susceptibility to a number of stroke phenotypes, and also to a portion or fragment of the isolated nucleic acid molecule (e.g., cDNA or the gene) that encodes PDE4D polypeptide (e.g., the polypeptide having SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, optionally  
10 comprising at least one SNP as set forth in Tables 9 and 10, or another splicing variant of a PDE4D polypeptide). In a preferred embodiment, the isolated nucleic acid molecule comprises SEQ ID NO:1 (shown in Appendix I) or the complement thereof. In another embodiment, the isolated nucleic acid molecule comprises the sequence of SEQ ID NO: 1 or the complement of SEQ ID NO: 1, except that one or  
15 more single nucleotide polymorphisms as shown in Tables 9 and 10 are also present. In another embodiment, the isolated nucleic acid molecules comprises exon 4D6, 4D7-1, 4D7-2, 4D7-3 and 4D8.

The isolated nucleic acid molecules of the present invention can be RNA, for example, mRNA, or DNA, such as cDNA and genomic DNA. DNA molecules can  
20 be double-stranded or single-stranded; single stranded RNA or DNA can be either the coding, or sense, strand or the non-coding, or antisense, strand. The nucleic acid molecule can include all or a portion of the coding sequence of the gene and can further comprise additional non-coding sequences such as introns and non-coding 3' and 5' sequences (including regulatory sequences, for example). Additionally, the  
25 nucleic acid molecule can be fused to a marker sequence, for example, a sequence that encodes a polypeptide to assist in isolation or purification of the polypeptide. Such sequences include, but are not limited to, those which encode a glutathione-S-transferase (GST) fusion protein and those which encode a hemagglutinin A (HA) polypeptide marker from influenza.

30 An "isolated" nucleic acid molecule, as used herein, is one that is separated from nucleic acids which normally flank the gene or nucleotide sequence (as in

genomic sequences) and/or has been completely or partially purified from other transcribed sequences (e.g., as in an RNA library). For example, an isolated nucleic acid of the invention may be substantially isolated with respect to the complex cellular milieu in which it naturally occurs, or culture medium when produced by recombinant techniques, or chemical precursors or other chemicals when chemically synthesized. In some instances, the isolated material will form part of a composition (for example, a crude extract containing other substances), buffer system or reagent mix. In other circumstances, the material may be purified to essential homogeneity, for example as determined by PAGE or column chromatography such as HPLC.

5 Preferably, an isolated nucleic acid molecule comprises at least about 50, 80 or 90% (on a molar basis) of all macromolecular species present. With regard to genomic DNA, the term "isolated" also can refer to nucleic acid molecules which are separated from the chromosome with which the genomic DNA is naturally associated. For example, the isolated nucleic acid molecule can contain less than

10 about 5 kb, 4 kb, 3 kb, 2 kb, 1 kb, 0.5 kb or 0.1 kb of nucleotides which flank the nucleic acid molecule in the genomic DNA of the cell from which the nucleic acid molecule is derived.

The nucleic acid molecule can be fused to other coding or regulatory sequences and still be considered isolated. Thus, recombinant DNA contained in a

20 vector is included in the definition of "isolated" as used herein. Also, isolated nucleic acid molecules include recombinant DNA molecules in heterologous host cells, as well as partially or substantially purified DNA molecules in solution. "Isolated" nucleic acid molecules also encompass *in vivo* and *in vitro* RNA transcripts of the DNA molecules of the present invention. An isolated nucleic acid

25 molecule or nucleotide sequence can include a nucleic acid molecule or nucleotide sequence which is synthesized chemically or by recombinant means. Therefore, recombinant DNA contained in a vector are included in the definition of "isolated" as used herein. Also, isolated nucleotide sequences include recombinant DNA molecules in heterologous organisms, as well as partially or substantially purified

30 DNA molecules in solution. *In vivo* and *in vitro* RNA transcripts of the DNA molecules of the present invention are also encompassed by "isolated" nucleotide



sequences. Such isolated nucleotide sequences are useful in the manufacture of the encoded polypeptide, as probes for isolating homologous sequences (e.g., from other mammalian species), for gene mapping (e.g., by *in situ* hybridization with chromosomes), or for detecting expression of the gene in tissue (e.g., human tissue),  
5 such as by Northern blot analysis.

The present invention also pertains to variant nucleic acid molecules which are not necessarily found in nature but which encode a PDE4D polypeptide (e.g., a polypeptide having the amino acid sequence of SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or another splicing variant of PDE4D polypeptide or polymorphic variant  
10 thereof. Thus, for example, DNA molecules which comprise a sequence that is different from the naturally-occurring nucleotide sequence but which, due to the degeneracy of the genetic code, encode a PDE4D polypeptide of the present invention are also the subject of this invention. The invention also encompasses nucleotide sequences encoding portions (fragments), or encoding variant  
15 polypeptides such as analogues or derivatives of the PDE4D polypeptide. Such variants can be naturally-occurring, such as in the case of allelic variation or single nucleotide polymorphisms, or non-naturally-occurring, such as those induced by various mutagens and mutagenic processes. Intended variations include, but are not limited to, addition, deletion and substitution of one or more nucleotides which can  
20 result in conservative or non-conservative amino acid changes, including additions and deletions. Preferably the nucleotide (and/or resultant amino acid) changes are silent or conserved; that is, they do not alter the characteristics or activity of the PDE4D polypeptide. In one preferred embodiment, the nucleotide sequences are fragments that comprise one or more polymorphic microsatellite markers. In  
25 another preferred embodiment, the nucleotide sequences are fragments that comprise one or more single nucleotide polymorphisms in the PDE4D gene.

Other alterations of the nucleic acid molecules of the invention can include, for example, labeling, methylation, internucleotide modifications such as uncharged linkages (e.g., methyl phosphonates, phosphotriesters, phosphoamidates,  
30 carbamates), charged linkages (e.g., phosphorothioates, phosphorodithioates), pendent moieties (e.g., polypeptides), intercalators (e.g., acridine, psoralen),

chelators, alkylators, and modified linkages (e.g., alpha anomeric nucleic acids).

Also included are synthetic molecules that mimic nucleic acid molecules in the ability to bind to a designated sequences via hydrogen bonding and other chemical interactions. Such molecules include, for example, those in which peptide linkages  
5 substitute for phosphate linkages in the backbone of the molecule.

The invention also pertains to nucleic acid molecules which hybridize under high stringency hybridization conditions, such as for selective hybridization, to a nucleotide sequence described herein (e.g., nucleic acid molecules which specifically hybridize to a nucleotide sequence encoding polypeptides described  
10 herein, and, optionally, have an activity of the polypeptide). In one embodiment, the invention includes variants described herein which hybridize under high stringency hybridization conditions (e.g., for selective hybridization) to a nucleotide sequence comprising a nucleotide sequence selected from SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Tables 9 and 10 or the  
15 complement thereof. In another embodiment, the invention includes variants described herein which hybridize under high stringency hybridization conditions (e.g., for selective hybridization) to a nucleotide sequence encoding an amino acid sequence selected from SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14 or polymorphic variant thereof. In a preferred embodiment, the variant which  
20 hybridizes under high stringency hybridizations has an activity of PDE4D.

Such nucleic acid molecules can be detected and/or isolated by specific hybridization (e.g., under high stringency conditions). "Specific hybridization," as used herein, refers to the ability of a first nucleic acid to hybridize to a second nucleic acid in a manner such that the first nucleic acid does not hybridize to any  
25 nucleic acid other than to the second nucleic acid (e.g., when the first nucleic acid has a higher similarity to the second nucleic acid than to any other nucleic acid in a sample wherein the hybridization is to be performed). "Stringency conditions" for hybridization is a term of art which refers to the incubation and wash conditions, e.g., conditions of temperature and buffer concentration, which permit hybridization  
30 of a particular nucleic acid to a second nucleic acid; the first nucleic acid may be perfectly (i.e., 100%) complementary to the second, or the first and second may

share some degree of complementarity which is less than perfect (e.g., 70%, 75%, 85%, 95%). For example, certain high stringency conditions can be used which distinguish perfectly complementary nucleic acids from those of less complementarity. "High stringency conditions", "moderate stringency conditions" and "low stringency conditions" for nucleic acid hybridizations are explained on pages 2.10.1-2.10.16 and pages 6.3.1-6.3.6 in *Current Protocols in Molecular Biology* (Ausubel, F.M. *et al.*, "Current Protocols in Molecular Biology", John Wiley & Sons, (1998), the entire teachings of which are incorporated by reference herein). The exact conditions which determine the stringency of hybridization depend not only on ionic strength (e.g., 0.2XSSC, 0.1XSSC), temperature (e.g., room temperature, 42°C, 68°C) and the concentration of destabilizing agents such as formamide or denaturing agents such as SDS, but also on factors such as the length of the nucleic acid sequence, base composition, percent mismatch between hybridizing sequences and the frequency of occurrence of subsets of that sequence within other non-identical sequences. Thus, equivalent conditions can be determined by varying one or more of these parameters while maintaining a similar degree of identity or similarity between the two nucleic acid molecules. Typically, conditions are used such that sequences at least about 60%, at least about 70%, at least about 80%, at least about 90% or at least about 95% or more identical to each other remain hybridized to one another. By varying hybridization conditions from a level of stringency at which no hybridization occurs to a level at which hybridization is first observed, conditions which will allow a given sequence to hybridize (e.g., selectively) with the most similar sequences in the sample can be determined.

Exemplary conditions are described in Krause, M.H. and S.A. Aaronson, *Methods in Enzymology*, 200:546-556 (1991). Also, in, Ausubel, *et al.*, "Current Protocols in Molecular Biology", John Wiley & Sons, (1998), which describes the determination of washing conditions for moderate or low stringency conditions. Washing is the step in which conditions are usually set so as to determine a minimum level of complementarity of the hybrids. Generally, starting from the lowest temperature at which only homologous hybridization occurs, each °C by

which the final wash temperature is reduced (holding SSC concentration constant) allows an increase by 1% in the maximum extent of mismatching among the sequences that hybridize. Generally, doubling the concentration of SSC results in an increase in  $T_m$  of  $\sim 17^\circ\text{C}$ . Using these guidelines, the washing temperature can be  
5 determined empirically for high, moderate or low stringency, depending on the level of mismatch sought.

For example, a low stringency wash can comprise washing in a solution containing 0.2XSSC/0.1% SDS for 10 min at room temperature; a moderate stringency wash can comprise washing in a prewarmed solution ( $42^\circ\text{C}$ ) solution  
10 containing 0.2XSSC/0.1% SDS for 15 min at  $42^\circ\text{C}$ ; and a high stringency wash can comprise washing in prewarmed ( $68^\circ\text{C}$ ) solution containing 0.1XSSC/0.1%SDS for 15 min at  $68^\circ\text{C}$ . Furthermore, washes can be performed repeatedly or sequentially to obtain a desired result as known in the art. Equivalent conditions can be determined by varying one or more of the parameters given as an example, as known in the art,  
15 while maintaining a similar degree of identity or similarity between the target nucleic acid molecule and the primer or probe used.

The percent identity of two nucleotide or amino acid sequences can be determined by aligning the sequences for optimal comparison purposes (*e.g.*, gaps can be introduced in the sequence of a first sequence). The nucleotides or amino  
20 acids at corresponding positions are then compared, and the percent identity between the two sequences is a function of the number of identical positions shared by the sequences (*i.e.*, % identity = # of identical positions/total # of positions x 100). In certain embodiments, the length of a sequence aligned for comparison purposes is at least 30%, preferably at least 40%, more preferably at least 60%, and even more  
25 preferably at least 70%, 80%, 90% or 95% of the length of the reference sequence. The actual comparison of the two sequences can be accomplished by well-known methods, for example, using a mathematical algorithm. A preferred, non-limiting example of such a mathematical algorithm is described in Karlin *et al.*, *Proc. Natl. Acad. Sci. USA*, 90:5873-5877 (1993). Such an algorithm is incorporated into the  
30 NBLAST and XBLAST programs (version 2.0) as described in Altschul *et al.*, *Nucleic Acids Res.*, 25:389-3402 (1997). When utilizing BLAST and Gapped

BLAST programs, the default parameters of the respective programs (e.g., NBLAST) can be used. See <http://www.ncbi.nlm.nih.gov>. In one embodiment, parameters for sequence comparison can be set at score=100, wordlength=12, or can be varied (e.g., W=5 or W=20).

5 Another preferred, non-limiting example of a mathematical algorithm utilized for the comparison of sequences is the algorithm of Myers and Miller, CABIOS (1989). Such an algorithm is incorporated into the ALIGN program (version 2.0) which is part of the GCG sequence alignment software package. When  
10 utilizing the ALIGN program for comparing amino acid sequences, a PAM120 weight residue table, a gap length penalty of 12, and a gap penalty of 4 can be used. Additional algorithms for sequence analysis are known in the art and include ADVANCE and ADAM as described in Torellis and Robotti (1994) *Comput. Appl. Biosci.*, 10:3-5; and FASTA described in Pearson and Lipman (1988) *PNAS*, 85:2444-8.

15 In another embodiment, the percent identity between two amino acid sequences can be accomplished using the GAP program in the CGC software package (available at <http://www.cgc.com>) using either a Blossom 63 matrix or a PAM250 matrix, and a gap weight of 12, 10, 8, 6, or 4 and a length weight of 2, 3, or 4. In yet another embodiment, the percent identity between two nucleic acid  
20 sequences can be accomplished using the GAP program in the GCG software package (available at <http://www.accelrys.com>), using a gap weight of 50 and a length weight of 3.

The present invention also provides isolated nucleic acid molecules that contain a fragment or portion that hybridizes under highly stringent conditions to a  
25 nucleotide sequence comprising a nucleotide sequence selected from SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Tables 9 and 10 and the complement thereof, and also provides isolated nucleic acid molecules that contain a fragment or portion that hybridizes under highly stringent conditions to a nucleotide sequence encoding an amino acid sequence selected from SEQ ID  
30 NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or polymorphic variant thereof. The nucleic acid fragments of the invention are at least about 15, preferably at least about 18, 20,

23 or 25 nucleotides, and can be 30, 40, 50, 100, 200 or more nucleotides in length. Longer fragments, for example, 30 or more nucleotides in length, which encode antigenic polypeptides described herein are particularly useful, such as for the generation of antibodies as described below.

5 In a related aspect, the nucleic acid fragments of the invention are used as probes or primers in assays such as those described herein. "Probes" or "primers" are oligonucleotides that hybridize in a base-specific manner to a complementary strand of nucleic acid molecules. Such probes and primers include polypeptide nucleic acids, as described in Nielsen *et al.*, *Science*, 254, 1497-1500 (1991).

10 Typically, a probe or primer comprises a region of nucleotide sequence that hybridizes to at least about 15, typically about 20-25, and more typically about 40, 50 or 75, consecutive nucleotides of a nucleic acid molecule comprising a contiguous nucleotide sequence selected from: SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Tables 9 and 10, the complement  
15 thereof, or a sequence encoding an amino acid sequence selected from SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or polymorphic variant thereof. In preferred embodiments, a probe or primer comprises 100 or fewer nucleotides, preferably from 6 to 50 nucleotides, preferably from 12 to 30 nucleotides. In other  
20 embodiments, the probe or primer is at least 70% identical to the contiguous nucleotide sequence or to the complement of the contiguous nucleotide sequence, preferably at least 80% identical, more preferably at least 90% identical, even more preferably at least 95% identical, or even capable of selectively hybridizing to the contiguous nucleotide sequence or to the complement of the contiguous nucleotide  
25 sequence. Often, the probe or primer further comprises a label, *e.g.*, radioisotope, fluorescent compound, enzyme, or enzyme co-factor.

The nucleic acid molecules of the invention such as those described above can be identified and isolated using standard molecular biology techniques and the sequence information provided herein. For example, nucleic acid molecules can be amplified and isolated by the polymerase chain reaction using synthetic  
30 oligonucleotide primers designed based on one or more of the sequences provided in SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in

Tables 9 and 10, and/or the complement thereof, or designed based on nucleotides based on sequences encoding one or more of the amino acid sequences provided herein. See generally *PCR Technology: Principles and Applications for DNA Amplification* (ed. H.A. Erlich, Freeman Press, NY, NY, 1992); *PCR Protocols: A*  
5 *Guide to Methods and Applications* (Eds. Innis, et al., Academic Press, San Diego, CA, 1990); Mattila et al., *Nucleic Acids Res.*, 19:4967 (1991); Eckert et al., *PCR Methods and Applications*, 1:17 (1991); PCR (eds. McPherson et al., IRL Press, Oxford); and U.S. Patent 4,683,202. The nucleic acid molecules can be amplified using cDNA, mRNA or genomic DNA as a template, cloned into an appropriate  
10 vector and characterized by DNA sequence analysis.

Other suitable amplification methods include the ligase chain reaction (LCR) (see Wu and Wallace, *Genomics*, 4:560 (1989), Landegren et al., *Science*, 241:1077 (1988), transcription amplification (Kwoh et al., *Proc. Natl. Acad. Sci. USA*, 86:1173 (1989)), and self-sustained sequence replication (Guatelli et al., *Proc. Nat.*  
15 *Acad. Sci. USA*, 87:1874 (1990)) and nucleic acid based sequence amplification (NASBA). The latter two amplification methods involve isothermal reactions based on isothermal transcription, which produce both single stranded RNA (ssRNA) and double stranded DNA (dsDNA) as the amplification products in a ratio of about 30 or 100 to 1, respectively.

20 The amplified DNA can be radiolabelled and used as a probe for screening a cDNA library derived from human cells, mRNA in zap express, ZIPLOX or other suitable vector. Corresponding clones can be isolated, DNA can obtained following *in vivo* excision, and the cloned insert can be sequenced in either or both orientations by art recognized methods to identify the correct reading frame encoding a  
25 polypeptide of the appropriate molecular weight. For example, the direct analysis of the nucleotide sequence of nucleic acid molecules of the present invention can be accomplished using well-known methods that are commercially available. See, for example, Sambrook et al., *Molecular Cloning, A Laboratory Manual* (2nd Ed., CSHP, New York 1989); Zyskind et al., *Recombinant DNA Laboratory Manual*,  
30 (Acad. Press, 1988)). Using these or similar methods, the polypeptide and the DNA encoding the polypeptide can be isolated, sequenced and further characterized.

Antisense nucleic acid molecules of the invention can be designed using the nucleotide sequences of SEQ ID NO: 1 and/or the complement of SEQ ID NO: 1, and/or a portion of SEQ ID NO:1 or the complement of SEQ ID NO:1 and/or a sequence encoding the amino acid sequences or SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 and/or 14, or encoding a portion of SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 and/or 14, (wherein any one of these may optionally comprise at least one polymorphism as shown in Tables 9 and 10) and constructed using chemical synthesis and enzymatic ligation reactions using procedures known in the art. For example, an antisense nucleic acid molecule (*e.g.*, an antisense oligonucleotide) can be chemically synthesized using naturally occurring nucleotides or variously modified nucleotides designed to increase the biological stability of the molecules or to increase the physical stability of the duplex formed between the antisense and sense nucleic acids, *e.g.*, phosphorothioate derivatives and acridine substituted nucleotides can be used. Alternatively, the antisense nucleic acid molecule can be produced biologically using an expression vector into which a nucleic acid molecule has been subcloned in an antisense orientation (*i.e.*, RNA transcribed from the inserted nucleic acid molecule will be of an antisense orientation to a target nucleic acid of interest).

In general, the isolated nucleic acid sequences of the invention can be used as molecular weight markers on Southern gels, and as chromosome markers which are labeled to map related gene positions. The nucleic acid sequences can also be used to compare with endogenous DNA sequences in patients to identify genetic disorders (*e.g.*, a predisposition for or susceptibility to stroke), and as probes, such as to hybridize and discover related DNA sequences or to subtract out known sequences from a sample. The nucleic acid sequences can further be used to derive primers for genetic fingerprinting, to raise anti-polypeptide antibodies using DNA immunization techniques, and as an antigen to raise anti-DNA antibodies or elicit immune responses. Portions or fragments of the nucleotide sequences identified herein (and the corresponding complete gene sequences) can be used in numerous ways as polynucleotide reagents. For example, these sequences can be used to: (i) map their respective genes on a chromosome; and, thus, locate gene regions



associated with genetic disease; (ii) identify an individual from a minute biological sample (tissue typing); and (iii) aid in forensic identification of a biological sample. Additionally, the nucleotide sequences of the invention can be used to identify and express recombinant polypeptides for analysis, characterization or therapeutic use, or  
5 as markers for tissues in which the corresponding polypeptide is expressed, either constitutively, during tissue differentiation, or in diseased states. The nucleic acid sequences can additionally be used as reagents in the screening and/or diagnostic assays described herein, and can also be included as components of kits (e.g., reagent kits) for use in the screening and/or diagnostic assays described herein.

- 10 Another aspect of the invention pertains to nucleic acid constructs containing a nucleic acid molecule selected from the group consisting of SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10 and the complement thereof (or a portion thereof). Yet another aspect of the invention pertains to nucleic acid constructs containing a nucleic acid molecule encoding the  
15 amino acid sequence of SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14 or polymorphic variant thereof. The constructs comprise a vector (e.g., an expression vector) into which a sequence of the invention has been inserted in a sense or antisense orientation. As used herein, the term "vector" refers to a nucleic acid molecule capable of transporting another nucleic acid to which it has been linked.
- 20 One type of vector is a "plasmid", which refers to a circular double stranded DNA loop into which additional DNA segments can be ligated. Another type of vector is a viral vector, wherein additional DNA segments can be ligated into the viral genome. Certain vectors are capable of autonomous replication in a host cell into which they are introduced (e.g., bacterial vectors having a bacterial origin of  
25 replication and episomal mammalian vectors). Other vectors (e.g., non-episomal mammalian vectors) are integrated into the genome of a host cell upon introduction into the host cell, and thereby are replicated along with the host genome. Moreover, certain vectors, expression vectors, are capable of directing the expression of genes to which they are operably linked. In general, expression vectors of utility in  
30 recombinant DNA techniques are often in the form of plasmids. However, the invention is intended to include such other forms of expression vectors, such as viral

vectors (*e.g.*, replication defective retroviruses, adenoviruses and adeno-associated viruses) that serve equivalent functions.

Preferred recombinant expression vectors of the invention comprise a nucleic acid molecule of the invention in a form suitable for expression of the nucleic acid molecule in a host cell. This means that the recombinant expression vectors include one or more regulatory sequences, selected on the basis of the host cells to be used for expression, which is operably linked to the nucleic acid sequence to be expressed. Within a recombinant expression vector, "operably or operatively linked" is intended to mean that the nucleotide sequence of interest is linked to the regulatory sequence(s) in a manner which allows for expression of the nucleotide sequence (*e.g.*, in an *in vitro* transcription/translation system or in a host cell when the vector is introduced into the host cell). The term "regulatory sequence" is intended to include promoters, enhancers and other expression control elements (*e.g.*, polyadenylation signals). Such regulatory sequences are described, for example, in Goeddel, *Gene Expression Technology: Methods in Enzymology* 185, Academic Press, San Diego, CA (1990). Regulatory sequences include those which direct constitutive expression of a nucleotide sequence in many types of host cell and those which direct expression of the nucleotide sequence only in certain host cells (*e.g.*, tissue-specific regulatory sequences). It will be appreciated by those skilled in the art that the design of the expression vector can depend on such factors as the choice of the host cell to be transformed and the level of expression of polypeptide desired. The expression vectors of the invention can be introduced into host cells to thereby produce polypeptides, including fusion polypeptides, encoded by nucleic acid molecules as described herein.

The recombinant expression vectors of the invention can be designed for expression of a polypeptide of the invention in prokaryotic or eukaryotic cells, *e.g.*, bacterial cells such as *E. coli*, insect cells (using baculovirus expression vectors), yeast cells or mammalian cells. Suitable host cells are discussed further in Goeddel, *supra*. Alternatively, the recombinant expression vector can be transcribed and translated *in vitro*, for example using T7 promoter regulatory sequences and T7 polymerase.

Another aspect of the invention pertains to host cells into which a recombinant expression vector of the invention has been introduced. The terms "host cell" and "recombinant host cell" are used interchangeably herein. It is understood that such terms refer not only to the particular subject cell but also to the progeny or potential progeny of such a cell. Because certain modifications may occur in succeeding generations due to either mutation or environmental influences, such progeny may not, in fact, be identical to the parent cell, but are still included within the scope of the term as used herein.

A host cell can be any prokaryotic or eukaryotic cell. For example, a nucleic acid molecule of the invention can be expressed in bacterial cells (*e.g.*, *E. coli*), insect cells, yeast or mammalian cells (such as Chinese hamster ovary cells (CHO) or COS cells). Other suitable host cells are known to those skilled in the art.

Vector DNA can be introduced into prokaryotic or eukaryotic cells via conventional transformation or transfection techniques. As used herein, the terms "transformation" and "transfection" are intended to refer to a variety of art-recognized techniques for introducing a foreign nucleic acid molecule (*e.g.*, DNA) into a host cell, including calcium phosphate or calcium chloride co-precipitation, DEAE-dextran-mediated transfection, lipofection, or electroporation. Suitable methods for transforming or transfecting host cells can be found in Sambrook, *et al.* (*supra*), and other laboratory manuals.

For stable transfection of mammalian cells, it is known that, depending upon the expression vector and transfection technique used, only a small fraction of cells may integrate the foreign DNA into their genome. In order to identify and select these integrants, a gene that encodes a selectable marker (*e.g.*, for resistance to antibiotics) is generally introduced into the host cells along with the gene of interest. Preferred selectable markers include those that confer resistance to drugs, such as G418, hygromycin and methotrexate. Nucleic acid molecules encoding a selectable marker can be introduced into a host cell on the same vector as the nucleic acid molecule of the invention or can be introduced on a separate vector. Cells stably transfected with the introduced nucleic acid molecule can be identified by drug

selection (*e.g.*, cells that have incorporated the selectable marker gene will survive, while the other cells die).

A host cell of the invention, such as a prokaryotic or eukaryotic host cell in culture, can be used to produce (*i.e.*, express) a polypeptide of the invention.

- 5 Accordingly, the invention further provides methods for producing a polypeptide using the host cells of the invention. In one embodiment, the method comprises culturing the host cell of invention (into which a recombinant expression vector encoding a polypeptide of the invention has been introduced) in a suitable medium such that the polypeptide is produced. In another embodiment, the method further
- 10 comprises isolating the polypeptide from the medium or the host cell.

- The host cells of the invention can also be used to produce nonhuman transgenic animals. For example, in one embodiment, a host cell of the invention is a fertilized oocyte or an embryonic stem cell into which a nucleic acid molecule of the invention has been introduced (*e.g.*, an exogenous PDE4D gene, or an exogenous
- 15 nucleic acid encoding PDE4D polypeptide). Such host cells can then be used to create non-human transgenic animals in which exogenous nucleotide sequences have been introduced into the genome or homologous recombinant animals in which endogenous nucleotide sequences have been altered. Such animals are useful for studying the function and/or activity of the nucleotide sequence and polypeptide
- 20 encoded by the sequence and for identifying and/or evaluating modulators of their activity. As used herein, a "transgenic animal" is a non-human animal, preferably a mammal, more preferably a rodent such as a rat or mouse, in which one or more of the cells of the animal includes a transgene. Other examples of transgenic animals include non-human primates, sheep, dogs, cows, goats, chickens and amphibians. A
- 25 transgene is exogenous DNA which is integrated into the genome of a cell from which a transgenic animal develops and which remains in the genome of the mature animal, thereby directing the expression of an encoded gene product in one or more cell types or tissues of the transgenic animal. As used herein, an "homologous recombinant animal" is a non-human animal, preferably a mammal, more preferably
- 30 a mouse, in which an endogenous gene has been altered by homologous recombination between the endogenous gene and an exogenous DNA molecule

introduced into a cell of the animal, e.g., an embryonic cell of the animal, prior to development of the animal.

Methods for generating transgenic animals via embryo manipulation and microinjection, particularly animals such as mice, have become conventional in the art and are described, for example, in U.S. Patent Nos. 4,736,866 and 4,870,009, 5 U.S. Patent No. 4,873,191 and in Hogan, *Manipulating the Mouse Embryo* (Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., 1986). Methods for constructing homologous recombination vectors and homologous recombinant animals are described further in Bradley (1991) *Current Opinion in Bio/Technology*, 10 2:823-829 and in PCT Publication Nos. WO 90/11354, WO 91/01140, WO 92/0968, and WO 93/04169. Clones of the non-human transgenic animals described herein can also be produced according to the methods described in Wilmut *et al.* (1997) *Nature*, 385:810-813 and PCT Publication Nos. WO 97/07668 and WO 97/07669.

#### POLYPEPTIDES OF THE INVENTION

15 The present invention also pertains to isolated polypeptides encoded by PDE4D ("PDE4D polypeptides") and fragments and variants thereof, as well as polypeptides encoded by nucleotide sequences described herein (e.g., other splicing variants). The term "polypeptide" refers to a polymer of amino acids, and not to a specific length; thus, peptides, oligopeptides and proteins are included within the 20 definition of a polypeptide. As used herein, a polypeptide is said to be "isolated" or "purified" when it is substantially free of cellular material when it is isolated from recombinant and non-recombinant cells, or free of chemical precursors or other chemicals when it is chemically synthesized. A polypeptide, however, can be joined to another polypeptide with which it is not normally associated in a cell (e.g., in a 25 "fusion protein") and still be "isolated" or "purified."

The polypeptides of the invention can be purified to homogeneity. It is understood, however, that preparations in which the polypeptide is not purified to homogeneity are useful. The critical feature is that the preparation allows for the desired function of the polypeptide, even in the presence of considerable amounts of 30 other components. Thus, the invention encompasses various degrees of purity. In

one embodiment, the language "substantially free of cellular material" includes preparations of the polypeptide having less than about 30% (by dry weight) other proteins (*i.e.*, contaminating protein), less than about 20% other proteins, less than about 10% other proteins, or less than about 5% other proteins.

- 5           When a polypeptide is recombinantly produced, it can also be substantially free of culture medium, *i.e.*, culture medium represents less than about 20%, less than about 10%, or less than about 5% of the volume of the polypeptide preparation. The language "substantially free of chemical precursors or other chemicals" includes preparations of the polypeptide in which it is separated from chemical precursors or
- 10 other chemicals that are involved in its synthesis. In one embodiment, the language "substantially free of chemical precursors or other chemicals" includes preparations of the polypeptide having less than about 30% (by dry weight) chemical precursors or other chemicals, less than about 20% chemical precursors or other chemicals, less than about 10% chemical precursors or other chemicals, or less than about 5%
- 15 chemical precursors or other chemicals.

- In one embodiment, a polypeptide of the invention comprises an amino acid sequence encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10 and complements and portions
- 20 thereof, *e.g.*, SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or a portion or polymorphic variant thereof. However, the polypeptides of the invention also encompass fragment and sequence variants. Variants include a substantially homologous polypeptide encoded by the same genetic locus in an organism, *i.e.*, an allelic variant, as well as other splicing variants. Variants also encompass
- 25 polypeptides derived from other genetic loci in an organism, but having substantial homology to a polypeptide encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10 and complements and portions thereof, or having substantial homology to a polypeptide
- 30 encoded by a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of nucleotide sequences encoding SEQ ID NO: 2, 3, 4, 5, 6, 7,

8, 9, 10, 12 or 14, or polymorphic variants thereof. Variants also include polypeptides substantially homologous or identical to these polypeptides but derived from another organism, *i.e.*, an ortholog. Variants also include polypeptides that are substantially homologous or identical to these polypeptides that are produced by  
5 chemical synthesis. Variants also include polypeptides that are substantially homologous or identical to these polypeptides that are produced by recombinant methods.

As used herein, two polypeptides (or a region of the polypeptides) are substantially homologous or identical when the amino acid sequences are at least  
10 about 45-55%, typically at least about 70-75%, more typically at least about 80-85%, and most typically greater than about 90% or more homologous or identical. A substantially homologous amino acid sequence, according to the present invention, will be encoded by a nucleic acid molecule hybridizing to SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10, or portion  
15 thereof, under stringent conditions as more particularly described above, or will be encoded by a nucleic acid molecule hybridizing to a nucleic acid sequence encoding SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, portion thereof or polymorphic variant thereof, under stringent conditions as more particularly described thereof.

To determine the percent homology or identity of two amino acid sequences,  
20 or of two nucleic acid sequences, the sequences are aligned for optimal comparison purposes (*e.g.*, gaps can be introduced in the sequence of one polypeptide or nucleic acid molecule for optimal alignment with the other polypeptide or nucleic acid molecule). The amino acid residues or nucleotides at corresponding amino acid positions or nucleotide positions are then compared. When a position in one  
25 sequence is occupied by the same amino acid residue or nucleotide as the corresponding position in the other sequence, then the molecules are homologous at that position. As used herein, amino acid or nucleic acid "homology" is equivalent to amino acid or nucleic acid "identity". The percent homology between the two sequences is a function of the number of identical positions shared by the sequences  
30 (*i.e.*, percent homology equals the number of identical positions/total number of positions times 100).

The invention also encompasses polypeptides having a lower degree of identity but having sufficient similarity so as to perform one or more of the same functions performed by a polypeptide encoded by a nucleic acid molecule of the invention. Similarity is determined by conserved amino acid substitution. Such  
5 substitutions are those that substitute a given amino acid in a polypeptide by another amino acid of like characteristics. Conservative substitutions are likely to be phenotypically silent. Typically seen as conservative substitutions are the replacements, one for another, among the aliphatic amino acids Ala, Val, Leu and Ile; interchange of the hydroxyl residues Ser and Thr, exchange of the acidic  
10 residues Asp and Glu, substitution between the amide residues Asn and Gln, exchange of the basic residues Lys and Arg and replacements among the aromatic residues Phe and Tyr. Guidance concerning which amino acid changes are likely to be phenotypically silent are found in Bowie *et al.*, *Science* 247:1306-1310 (1990).

A variant polypeptide can differ in amino acid sequence by one or more  
15 substitutions, deletions, insertions, inversions, fusions, and truncations or a combination of any of these. Further, variant polypeptides can be fully functional or can lack function in one or more activities. Fully functional variants typically contain only conservative variation or variation in non-critical residues or in non-critical regions. Functional variants can also contain substitution of similar  
20 amino acids that result in no change or an insignificant change in function. Alternatively, such substitutions may positively or negatively affect function to some degree. Non-functional variants typically contain one or more non-conservative amino acid substitutions, deletions, insertions, inversions, or truncation or a substitution, insertion, inversion, or deletion in a critical residue or critical region.

25 Amino acids that are essential for function can be identified by methods known in the art, such as site-directed mutagenesis or alanine-scanning mutagenesis (Cunningham *et al.*, *Science*, 244:1081-1085 (1989)). The latter procedure introduces single alanine mutations at every residue in the molecule. The resulting mutant molecules are then tested for biological activity *in vitro*, or *in vitro*  
30 proliferative activity. Sites that are critical for polypeptide activity can also be determined by structural analysis such as crystallization, nuclear magnetic resonance



or photoaffinity labeling (Smith *et al.*, *J. Mol. Biol.*, 224:899-904 (1992); de Vos *et al.*, *Science*, 255:306-312 (1992)).

The invention also includes polypeptide fragments of the polypeptides of the invention. Fragments can be derived from a polypeptide encoded by a nucleic acid molecule comprising SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10 or a portion thereof and the complements thereof (e.g., SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or other splicing variants). However, the invention also encompasses fragments of the variants of the polypeptides described herein. As used herein, a fragment comprises at least 6 contiguous amino acids. Useful fragments include those that retain one or more of the biological activities of the polypeptide as well as fragments that can be used as an immunogen to generate polypeptide-specific antibodies.

Biologically active fragments (peptides which are, for example, 6, 9, 12, 15, 16, 20, 30, 35, 36, 37, 38, 39, 40, 50, 100 or more amino acids in length) can comprise a domain, segment, or motif that has been identified by analysis of the polypeptide sequence using well-known methods, e.g., signal peptides, extracellular domains, one or more transmembrane segments or loops, ligand binding regions, zinc finger domains, DNA binding domains, acylation sites, glycosylation sites, or phosphorylation sites.

Fragments can be discrete (not fused to other amino acids or polypeptides) or can be within a larger polypeptide. Further, several fragments can be comprised within a single larger polypeptide. In one embodiment a fragment designed for expression in a host can have heterologous pre- and pro-polypeptide regions fused to the amino terminus of the polypeptide fragment and an additional region fused to the carboxyl terminus of the fragment.

The invention thus provides chimeric or fusion polypeptides. These comprise a polypeptide of the invention operatively linked to a heterologous protein or polypeptide having an amino acid sequence not substantially homologous to the polypeptide. "Operatively linked" indicates that the polypeptide and the heterologous protein are fused in-frame. The heterologous protein can be fused to the N-terminus or C-terminus of the polypeptide. In one embodiment the fusion

polypeptide does not affect function of the polypeptide *per se*. For example, the fusion polypeptide can be a GST-fusion polypeptide in which the polypeptide sequences are fused to the C-terminus of the GST sequences. Other types of fusion polypeptides include, but are not limited to, enzymatic fusion polypeptides, for example  $\beta$ -galactosidase fusions, yeast two-hybrid GAL fusions, poly-His fusions and Ig fusions. Such fusion polypeptides, particularly poly-His fusions, can facilitate the purification of recombinant polypeptide. In certain host cells (*e.g.*, mammalian host cells), expression and/or secretion of a polypeptide can be increased by using a heterologous signal sequence. Therefore, in another embodiment, the fusion polypeptide contains a heterologous signal sequence at its N-terminus.

EP-A-O 464 533 discloses fusion proteins comprising various portions of immunoglobulin constant regions. The Fc is useful in therapy and diagnosis and thus results, for example, in improved pharmacokinetic properties (EP-A 0232 262). In drug discovery, for example, human proteins have been fused with Fc portions for the purpose of high-throughput screening assays to identify antagonists. Bennett *et al.*, *Journal of Molecular Recognition*, 8:52-58 (1995) and Johanson *et al.*, *The Journal of Biological Chemistry*, 270,16:9459-9471 (1995). Thus, this invention also encompasses soluble fusion polypeptides containing a polypeptide of the invention and various portions of the constant regions of heavy or light chains of immunoglobulins of various subclass (IgG, IgM, IgA, IgE).

A chimeric or fusion polypeptide can be produced by standard recombinant DNA techniques. For example, DNA fragments coding for the different polypeptide sequences are ligated together in-frame in accordance with conventional techniques. In another embodiment, the fusion gene can be synthesized by conventional techniques including automated DNA synthesizers. Alternatively, PCR amplification of nucleic acid fragments can be carried out using anchor primers which give rise to complementary overhangs between two consecutive nucleic acid fragments which can subsequently be annealed and re-amplified to generate a chimeric nucleic acid sequence (see Ausubel *et al.*, *Current Protocols in Molecular Biology*, 1992). Moreover, many expression vectors are commercially available that already encode a

fusion moiety (*e.g.*, a GST protein). A nucleic acid molecule encoding a polypeptide of the invention can be cloned into such an expression vector such that the fusion moiety is linked in-frame to the polypeptide.

The isolated polypeptide can be purified from cells that naturally express it, purified from cells that have been altered to express it (recombinant), or synthesized using known protein synthesis methods. In one embodiment, the polypeptide is produced by recombinant DNA techniques. For example, a nucleic acid molecule encoding the polypeptide is cloned into an expression vector, the expression vector introduced into a host cell and the polypeptide expressed in the host cell. The polypeptide can then be isolated from the cells by an appropriate purification scheme using standard protein purification techniques.

In general, polypeptides of the present invention can be used as a molecular weight marker on SDS-PAGE gels or on molecular sieve gel filtration columns using art-recognized methods. The polypeptides of the present invention can be used to raise antibodies or to elicit an immune response. The polypeptides can also be used as a reagent, *e.g.*, a labeled reagent, in assays to quantitatively determine levels of the polypeptide or a molecule to which it binds (*e.g.*, a receptor or a ligand) in biological fluids. The polypeptides can also be used as markers for cells or tissues in which the corresponding polypeptide is preferentially expressed, either constitutively, during tissue differentiation, or in a diseased state. The polypeptides can be used to isolate a corresponding binding agent, *e.g.*, receptor or ligand, such as, for example, in an interaction trap assay, and to screen for peptide or small molecule antagonists or agonists of the binding interaction.

#### ANTIBODIES OF THE INVENTION

Polyclonal and/or monoclonal antibodies that specifically bind one form of the gene product but not to the other form of the gene product are also provided. Antibodies are also provided that bind a portion of either the variant or the reference gene product that contains the polymorphic site or sites. The invention provides antibodies to the polypeptides and polypeptide fragments of the invention, *e.g.*, having an amino acid sequence encoded by SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12

or 14, or a portion thereof, or having an amino acid sequence encoded by a nucleic acid molecule comprising all or a portion of SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10 (e.g., SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or another splicing variant or portion thereof). The

5 term "antibody" as used herein refers to immunoglobulin molecules and immunologically active portions of immunoglobulin molecules, *i.e.*, molecules that contain an antigen binding site that specifically binds an antigen. A molecule that specifically binds to a polypeptide of the invention is a molecule that binds to that polypeptide or a fragment thereof, but does not substantially bind other molecules in

10 a sample, *e.g.*, a biological sample, which naturally contains the polypeptide. Examples of immunologically active portions of immunoglobulin molecules include F(ab) and F(ab')<sub>2</sub> fragments which can be generated by treating the antibody with an enzyme such as pepsin. The invention provides polyclonal and monoclonal antibodies that bind to a polypeptide of the invention. The term "monoclonal

15 antibody" or "monoclonal antibody composition", as used herein, refers to a population of antibody molecules that contain only one species of an antigen binding site capable of immunoreacting with a particular epitope of a polypeptide of the invention. A monoclonal antibody composition thus typically displays a single binding affinity for a particular polypeptide of the invention with which it

20 immunoreacts.

Polyclonal antibodies can be prepared as described above by immunizing a suitable subject with a desired immunogen, *e.g.*, polypeptide of the invention or fragment thereof. The antibody titer in the immunized subject can be monitored over time by standard techniques, such as with an enzyme linked immunosorbent

25 assay (ELISA) using immobilized polypeptide. If desired, the antibody molecules directed against the polypeptide can be isolated from the mammal (*e.g.*, from the blood) and further purified by well-known techniques, such as protein A chromatography to obtain the IgG fraction. At an appropriate time after immunization, *e.g.*, when the antibody titers are highest, antibody-producing cells

30 can be obtained from the subject and used to prepare monoclonal antibodies by standard techniques, such as the hybridoma technique originally described by Kohler

and Milstein (1975) *Nature*, 256:495-497, the human B cell hybridoma technique (Kozbor *et al.* (1983) *Immunol. Today*, 4:72), the EBV-hybridoma technique (Cole *et al.* (1985), *Monoclonal Antibodies and Cancer Therapy*, Alan R. Liss, Inc., pp. 77-96) or trioma techniques. The technology for producing hybridomas is well  
5 known (see generally *Current Protocols in Immunology* (1994) Coligan *et al.* (eds.) John Wiley & Sons, Inc., New York, NY). Briefly, an immortal cell line (typically a myeloma) is fused to lymphocytes (typically splenocytes) from a mammal immunized with an immunogen as described above, and the culture supernatants of the resulting hybridoma cells are screened to identify a hybridoma producing a  
10 monoclonal antibody that binds a polypeptide of the invention.

Any of the many well known protocols used for fusing lymphocytes and immortalized cell lines can be applied for the purpose of generating a monoclonal antibody to a polypeptide of the invention (see, *e.g.*, *Current Protocols in Immunology*, *supra*; Galfre *et al.* (1977) *Nature*, 266:55052; R.H. Kenneth, in  
15 *Monoclonal Antibodies: A New Dimension In Biological Analyses*, Plenum Publishing Corp., New York, New York (1980); and Lerner (1981) *Yale J. Biol. Med.*, 54:387-402. Moreover, the ordinarily skilled worker will appreciate that there are many variations of such methods that also would be useful.

Alternative to preparing monoclonal antibody-secreting hybridomas, a  
20 monoclonal antibody to a polypeptide of the invention can be identified and isolated by screening a recombinant combinatorial immunoglobulin library (*e.g.*, an antibody phage display library) with the polypeptide to thereby isolate immunoglobulin library members that bind the polypeptide. Kits for generating and screening phage display libraries are commercially available (*e.g.*, the Pharmacia *Recombinant Phage*  
25 *Antibody System*, Catalog No. 27-9400-01; and the Stratagene *SurfZAP™* Phage Display Kit, Catalog No. 240612). Additionally, examples of methods and reagents particularly amenable for use in generating and screening antibody display library can be found in, for example, U.S. Patent No. 5,223,409; PCT Publication No. WO 92/18619; PCT Publication No. WO 91/17271; PCT Publication No. WO 92/20791;  
30 PCT Publication No. WO 92/15679; PCT Publication No. WO 93/01288; PCT Publication No. WO 92/01047; PCT Publication No. WO 92/09690; PCT

Publication No. WO 90/02809; Fuchs *et al.* (1991) *Bio/Technology*, 9:1370-1372; Hay *et al.* (1992) *Hum. Antibod. Hybridomas*, 3:81-85; Huse *et al.* (1989) *Science*, 246:1275-1281; Griffiths *et al.* (1993) *EMBO J.*, 12:725-734.

Additionally, recombinant antibodies, such as chimeric and humanized  
5 monoclonal antibodies, comprising both human and non-human portions, which can be made using standard recombinant DNA techniques, are within the scope of the invention. Such chimeric and humanized monoclonal antibodies can be produced by recombinant DNA techniques known in the art.

In general, antibodies of the invention (*e.g.*, a monoclonal antibody) can be  
10 used to isolate a polypeptide of the invention by standard techniques, such as affinity chromatography or immunoprecipitation. A polypeptide-specific antibody can facilitate the purification of natural polypeptide from cells and of recombinantly produced polypeptide expressed in host cells. Moreover, an antibody specific for a polypeptide of the invention can be used to detect the polypeptide (*e.g.*, in a cellular  
15 lysate, cell supernatant, or tissue sample) in order to evaluate the abundance and pattern of expression of the polypeptide. Antibodies can be used diagnostically to monitor protein levels in tissue as part of a clinical testing procedure, *e.g.*, to, for example, determine the efficacy of a given treatment regimen. Detection can be facilitated by coupling the antibody to a detectable substance. Examples of  
20 detectable substances include various enzymes, prosthetic groups, fluorescent materials, luminescent materials, bioluminescent materials, and radioactive materials. Examples of suitable enzymes include horseradish peroxidase, alkaline phosphatase,  $\beta$ -galactosidase, or acetylcholinesterase; examples of suitable prosthetic group complexes include streptavidin/biotin and avidin/biotin; examples  
25 of suitable fluorescent materials include umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride or phycoerythrin; an example of a luminescent material includes luminol; examples of bioluminescent materials include luciferase, luciferin, and aequorin, and examples of suitable radioactive material include  $^{125}\text{I}$ ,  $^{131}\text{I}$ ,  $^{35}\text{S}$  or  $^3\text{H}$ .

## DIAGNOSTIC AND SCREENING ASSAYS OF THE INVENTION

The present invention also pertains to a method of diagnosing or aiding in the diagnosis of stroke associated with the presence of the PDE4D gene or gene product in an individual. Diagnostic assays can be designed for assessing PDE4D gene expression, or for assessing activity of PDE4D polypeptides of the invention. In one embodiment, the assays are used in the context of a biological sample (*e.g.*, blood, serum, cells, tissue) to thereby determine whether an individual is afflicted with stroke, or is at risk for (has a predisposition for or a susceptibility to) developing stroke. The invention also provides for prognostic (or predictive) assays for determining whether an individual is susceptible to developing stroke. For example, mutations in the gene can be assayed in a biological sample. Such assays can be used for prognostic or predictive purpose to thereby prophylactically treat an individual prior to the onset of symptoms associated with stroke. Another aspect of the invention pertains to assays for monitoring the influence of agents (*e.g.*, drugs, compounds or other agents) on the gene expression or activity of polypeptides of the invention, as well as to assays for identifying agents which bind to PDE4D polypeptides. These and other assays and agents are described in further detail in the following sections.

## DIAGNOSTIC ASSAYS

The nucleic acids, probes, primers, polypeptides and antibodies described herein can be used in methods of diagnosis of a susceptibility to stroke, as well as in kits useful for diagnosis of a susceptibility to stroke.

In one embodiment of the invention, diagnosis of a susceptibility to stroke is made by detecting a polymorphism in PDE4D as described herein. The polymorphism can be a mutation in PDE4D, such as the insertion or deletion of a single nucleotide, or of more than one nucleotide, resulting in a frame shift mutation; the change of at least one nucleotide, resulting in a change in the encoded amino acid; the change of at least one nucleotide, resulting in the generation of a premature stop codon; the deletion of several nucleotides, resulting in a deletion of one or more amino acids encoded by the nucleotides; the insertion of one or several nucleotides,

such as by unequal recombination or gene conversion, resulting in an interruption of the coding sequence of the gene; duplication of all or a part of the gene; transposition of all or a part of the gene; or rearrangement of all or a part of the gene. More than one such mutation may be present in a single gene. Such sequence changes cause a mutation in the polypeptide encoded by a PDE4D gene. For example, if the mutation is a frame shift mutation, the frame shift can result in a change in the encoded amino acids, and/or can result in the generation of a premature stop codon, causing generation of a truncated polypeptide. Alternatively, a polymorphism associated with a susceptibility to stroke can be a synonymous mutation in one or more nucleotides (i.e., a mutation that does not result in a change in the polypeptide encoded by a PDE4D gene). Such a polymorphism may alter splicing sites, affect the stability or transport of mRNA, or otherwise affect the transcription or translation of the gene. A PDE4D gene that has any of the mutations described above is referred to herein as a "mutant gene."

In a first method of diagnosing a susceptibility to stroke, hybridization methods, such as Southern analysis, Northern analysis, or *in situ* hybridizations, can be used (see Current Protocols in Molecular Biology, Ausubel, F. *et al.*, eds., John Wiley & Sons, including all supplements through 1999). For example, a biological sample from a test subject (a "test sample") of genomic DNA, RNA, or cDNA, is obtained from an individual suspected of having, being susceptible to or predisposed for, or carrying a defect for, stroke (the "test individual"). The individual can be an adult, child, or fetus. The test sample can be from any source which contains genomic DNA, such as a blood sample, sample of amniotic fluid, sample of cerebrospinal fluid, or tissue sample from skin, muscle, buccal or conjunctival mucosa, placenta, gastrointestinal tract or other organs. A test sample of DNA from fetal cells or tissue can be obtained by appropriate methods, such as by amniocentesis or chorionic villus sampling. The DNA, RNA, or cDNA sample is then examined to determine whether a polymorphism in *PDE4D* is present, and/or to determine which splicing variant(s) encoded by PDE4D is present. The presence of the polymorphism or splicing variant(s) can be indicated by hybridization of the gene in the genomic DNA, RNA, or cDNA to a nucleic acid probe. A "nucleic acid



probe", as used herein, can be a DNA probe or an RNA probe; the nucleic acid probe can contain at least one polymorphism in PDE4D or contains a nucleic acid encoding a particular splicing variant of PDE4D. The probe can be any of the nucleic acid molecules described above (e.g., the gene, a fragment, a vector  
5 comprising the gene, a probe or primer, etc.).

To diagnose a susceptibility to stroke, a hybridization sample is formed by contacting the test sample containing PDE4D, with at least one nucleic acid probe. A preferred probe for detecting mRNA or genomic DNA is a labeled nucleic acid probe capable of hybridizing to mRNA or genomic DNA sequences described  
10 herein. The nucleic acid probe can be, for example, a full-length nucleic acid molecule, or a portion thereof, such as an oligonucleotide of at least 15, 30, 50, 100, 250 or 500 nucleotides in length and sufficient to specifically hybridize under stringent conditions to appropriate mRNA or genomic DNA. For example, the nucleic acid probe can be all or a portion of SEQ ID NO: 1 which may optionally  
15 comprise at least one polymorphism shown in Tables 9 and 10, or the complement thereof, or a portion thereof; or can be a nucleic acid encoding a portion of SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14. Other suitable probes for use in the diagnostic assays of the invention are described above (see e.g., probes and primers discussed under the heading, "Nucleic Acids of the Invention").

20 The hybridization sample is maintained under conditions which are sufficient to allow specific hybridization of the nucleic acid probe to PDE4D. "Specific hybridization", as used herein, indicates exact hybridization (e.g., with no mismatches). Specific hybridization can be performed under high stringency conditions or moderate stringency conditions, for example, as described above. In a  
25 particularly preferred embodiment, the hybridization conditions for specific hybridization are high stringency.

Specific hybridization, if present, is then detected using standard methods. If specific hybridization occurs between the nucleic acid probe and PDE4D in the test sample, then PDE4D has the polymorphism, or is the splicing variant, that is present  
30 in the nucleic acid probe. More than one nucleic acid probe can also be used concurrently in this method. Specific hybridization of any one of the nucleic acid

probes is indicative of a polymorphism in PDE4D, or of the presence of a particular splicing variant encoding PDE4D and is therefore diagnostic for a susceptibility to stroke.

In Northern analysis (see Current Protocols in Molecular Biology, Ausubel, F. *et al.*, eds., John Wiley & Sons, *supra*) the hybridization methods described above  
5 are used to identify the presence of a polymorphism or a particular splicing variant, associated with a susceptibility to stroke. For Northern analysis, a test sample of RNA is obtained from the individual by appropriate means. Specific hybridization of a nucleic acid probe, as described above, to RNA from the individual is indicative  
10 of a polymorphism in PDE4D, or of the presence of a particular splicing variant encoded by PDE4D, and is therefore diagnostic for a susceptibility to stroke.

For representative examples of use of nucleic acid probes, see, for example, U.S. Patents No. 5,288,611 and 4,851,330.

Alternatively, a peptide nucleic acid (PNA) probe can be used instead of a  
15 nucleic acid probe in the hybridization methods described above. PNA is a DNA mimic having a peptide-like, inorganic backbone, such as N-(2-aminoethyl)glycine units, with an organic base (A, G, C, T or U) attached to the glycine nitrogen via a methylene carbonyl linker (see, for example, Nielsen, P.E. *et al.*, *Bioconjugate Chemistry*, 1994, 5, American Chemical Society, p. 1 (1994)). The PNA probe can  
20 be designed to specifically hybridize to a gene having a polymorphism associated with a susceptibility to stroke. Hybridization of the PNA probe to PDE4D is diagnostic for a susceptibility to stroke.

In another method of the invention, mutation analysis by restriction digestion can be used to detect a mutant gene, or genes containing a polymorphism(s), if the  
25 mutation or polymorphism in the gene results in the creation or elimination of a restriction site. A test sample containing genomic DNA is obtained from the individual. Polymerase chain reaction (PCR) can be used to amplify PDE4D (and, if necessary, the flanking sequences) in the test sample of genomic DNA from the test individual. RFLP analysis is conducted as described (see Current Protocols in  
30 Molecular Biology, *supra*). The digestion pattern of the relevant DNA fragment

indicates the presence or absence of the mutation or polymorphism in PDE4D, and therefore indicates the presence or absence of this susceptibility to stroke.

Sequence analysis can also be used to detect specific polymorphisms in PDE4D. A test sample of DNA or RNA is obtained from the test individual. PCR  
5 or other appropriate methods can be used to amplify the gene, and/or its flanking sequences, if desired. The sequence of PDE4D, or a fragment of the gene, or cDNA, or fragment of the cDNA, or mRNA, or fragment of the mRNA, is determined, using standard methods. The sequence of the gene, gene fragment, cDNA, cDNA  
10 fragment, mRNA, or mRNA fragment is compared with the known nucleic acid sequence of the gene, cDNA (e.g., SEQ ID NO:1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10, or a nucleic acid sequence encoding SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or a fragment thereof) or mRNA, as appropriate. The presence of a polymorphism in PDE4D indicates that the individual has a susceptibility to stroke.

15 Allele-specific oligonucleotides can also be used to detect the presence of a polymorphism in PDE4D, through the use of dot-blot hybridization of amplified oligonucleotides with allele-specific oligonucleotide (ASO) probes (see, for example, Saiki, R. *et al.*, (1986), *Nature (London)* 324:163-166). An "allele-specific oligonucleotide" (also referred to herein as an "allele-specific oligonucleotide  
20 probe") is an oligonucleotide of approximately 10-50 base pairs, preferably approximately 15-30 base pairs, that specifically hybridizes to PDE4D, and that contains a polymorphism associated with a susceptibility to stroke. An allele-specific oligonucleotide probe that is specific for particular polymorphisms in PDE4D can be prepared, using standard methods (see Current Protocols in  
25 Molecular Biology, *supra*). To identify polymorphisms in the gene that are associated with a susceptibility to stroke, a test sample of DNA is obtained from the individual. PCR can be used to amplify all or a fragment of PDE4D, and its flanking sequences. The DNA containing the amplified PDE4D (or fragment of the gene) is dot-blotted, using standard methods (see Current Protocols in Molecular  
30 Biology, *supra*), and the blot is contacted with the oligonucleotide probe. The presence of specific hybridization of the probe to the amplified PDE4D is then

detected. Specific hybridization of an allele-specific oligonucleotide probe to DNA from the individual is indicative of a polymorphism in PDE4D, and is therefore indicative of a susceptibility to stroke.

In another embodiment, arrays of oligonucleotide probes that are  
5 complementary to target nucleic acid sequence segments from an individual, can be used to identify polymorphisms in PDE4D. For example, in one embodiment, an oligonucleotide array can be used. Oligonucleotide arrays typically comprise a plurality of different oligonucleotide probes that are coupled to a surface of a substrate in different known locations. These oligonucleotide arrays, also described  
10 as "Genechips.TM.," have been generally described in the art, for example, U.S. Pat. No. 5,143,854 and PCT patent publication Nos. WO 90/15070 and 92/10092. These arrays can generally be produced using mechanical synthesis methods or light directed synthesis methods which incorporate a combination of photolithographic methods and solid phase oligonucleotide synthesis methods. See Fodor *et al.*,  
15 *Science*, 251:767-777 (1991), Pirrung *et al.*, U.S. Pat. No. 5,143,854 (see also PCT Application No. WO 90/15070) and Fodor *et al.*, PCT Publication No. WO 92/10092 and U.S. Pat. No. 5,424,186, the entire teachings of each of which are incorporated by reference herein. Techniques for the synthesis of these arrays using mechanical synthesis methods are described in, e.g., U.S. Pat. Nos. 5,384,261, the  
20 entire teachings of which are incorporated by reference herein.

Once an oligonucleotide array is prepared, a nucleic acid of interest is hybridized with the array and scanned for polymorphisms. Hybridization and scanning are generally carried out by methods described herein and also in, e.g., Published PCT Application Nos. WO 92/10092 and WO 95/11995, and U.S. Pat.  
25 No. 5,424,186, the entire teachings of which are incorporated by reference herein. In brief, a target nucleic acid sequence which includes one or more previously identified polymorphic markers is amplified by well known amplification techniques, e.g., PCR. Typically, this involves the use of primer sequences that are complementary to the two strands of the target sequence both upstream and  
30 downstream from the polymorphism. Asymmetric PCR techniques may also be used. Amplified target, generally incorporating a label, is then hybridized with the

array under appropriate conditions. Upon completion of hybridization and washing of the array, the array is scanned to determine the position on the array to which the target sequence hybridizes. The hybridization data obtained from the scan is typically in the form of fluorescence intensities as a function of location on the array.

5           Although primarily described in terms of a single detection block, e.g., for detection of a single polymorphism, arrays can include multiple detection blocks, and thus be capable of analyzing multiple, specific polymorphisms. In alternate arrangements, it will generally be understood that detection blocks may be grouped within a single array or in multiple, separate arrays so that varying, optimal  
10       conditions may be used during the hybridization of the target to the array. For example, it may often be desirable to provide for the detection of those polymorphisms that fall within G-C rich stretches of a genomic sequence, separately from those falling in A-T rich segments. This allows for the separate optimization of hybridization conditions for each situation.

15           Additional description of use of oligonucleotide arrays for detection of polymorphisms can be found, for example, in U.S. Patents 5,858,659 and 5,837,832, the entire teachings of which are incorporated by reference herein.

Other methods of nucleic acid analysis can be used to detect polymorphisms in PDE4D or splicing variants encoding by PDE4D. Representative methods  
20       include direct manual sequencing (Church and Gilbert, (1988), *Proc. Natl. Acad. Sci. USA* 81:1991-1995; Sanger, F. *et al.* (1977) *Proc. Natl. Acad. Sci.* 74:5463-5467; Beavis *et al.* U.S. Pat. No. 5,288,644); automated fluorescent sequencing; single-stranded conformation polymorphism assays (SSCP); clamped denaturing gel electrophoresis (CDGE); denaturing gradient gel electrophoresis (DGGE) (Sheffield,  
25       V.C. *et al.* (1989) *Proc. Natl. Acad. Sci. USA* 86:232-236), mobility shift analysis (Orita, M. *et al.* (1989) *Proc. Natl. Acad. Sci. USA* 86:2766-2770), restriction enzyme analysis (Flavell *et al.* (1978) *Cell* 15:25; Geever, *et al.* (1981) *Proc. Natl. Acad. Sci. USA* 78:5081); heteroduplex analysis; chemical mismatch cleavage (CMC) (Cotton *et al.* (1985) *Proc. Natl. Acad. Sci. USA* 85:4397-4401); RNase  
30       protection assays (Myers, R.M. *et al.* (1985) *Science* 230:1242); use of polypeptides

which recognize nucleotide mismatches, such as *E. coli* mutS protein; allele-specific PCR, for example.

In another embodiment of the invention, diagnosis of a susceptibility to stroke can also be made by examining expression and/or composition of an PDE4D polypeptide, by a variety of methods, including enzyme linked immunosorbent assays (ELISAs), Western blots, immunoprecipitations and immunofluorescence. A test sample from an individual is assessed for the presence of an alteration in the expression and/or an alteration in composition of the polypeptide encoded by PDE4D, or for the presence of a particular variant encoded by PDE4D. An alteration in expression of a polypeptide encoded by PDE4D can be, for example, an alteration in the quantitative polypeptide expression (i.e., the amount of polypeptide produced); an alteration in the composition of a polypeptide encoded by PDE4D is an alteration in the qualitative polypeptide expression (e.g., expression of a mutant PDE4D polypeptide or of a different splicing variant). In a preferred embodiment, diagnosis of a susceptibility to stroke is made by detecting a particular splicing variant encoded by PDE4D, or a particular pattern of splicing variants.

Both such alterations (quantitative and qualitative) can also be present. An "alteration" in the polypeptide expression or composition, as used herein, refers to an alteration in expression or composition in a test sample, as compared with the expression or composition of polypeptide by PDE4D in a control sample. A control sample is a sample that corresponds to the test sample (e.g., is from the same type of cells), and is from an individual who is not affected by stroke. An alteration in the expression or composition of the polypeptide in the test sample, as compared with the control sample, is indicative of a susceptibility to stroke. Similarly, the presence of one or more different splicing variants in the test sample, or the presence of significantly different amounts of different splicing variants in the test sample, as compared with the control sample, is indicative of a susceptibility to stroke. Various means of examining expression or composition of the polypeptide encoded by PDE4D can be used, including spectroscopy, colorimetry, electrophoresis, isoelectric focusing, and immunoassays (e.g., David *et al.*, U.S. Pat. No. 4,376,110) such as immunoblotting (see also Current Protocols in Molecular Biology,

particularly chapter 10). For example, in one embodiment, an antibody capable of binding to the polypeptide (e.g., as described above), preferably an antibody with a detectable label, can be used. Antibodies can be polyclonal, or more preferably, monoclonal. An intact antibody, or a fragment thereof (e.g., Fab or F(ab')<sub>2</sub>) can be used. The term "labeled", with regard to the probe or antibody, is intended to encompass direct labeling of the probe or antibody by coupling (i.e., physically linking) a detectable substance to the probe or antibody, as well as indirect labeling of the probe or antibody by reactivity with another reagent that is directly labeled. Examples of indirect labeling include detection of a primary antibody using a fluorescently labeled secondary antibody and end-labeling of a DNA probe with biotin such that it can be detected with fluorescently labeled streptavidin.

Western blotting analysis, using an antibody as described above that specifically binds to a polypeptide encoded by a mutant PDE4D, or an antibody that specifically binds to a polypeptide encoded by a non-mutant gene, or an antibody that specifically binds to a particular splicing variant encoded by PDE4D, can be used to identify the presence in a test sample of a particular splicing variant or of a polypeptide encoded by a polymorphic or mutant PDE4D, or the absence in a test sample of a particular splicing variant or of a polypeptide encoded by a non-polymorphic or non-mutant gene. The presence of a polypeptide encoded by a polymorphic or mutant gene, or the absence of a polypeptide encoded by a non-polymorphic or non-mutant gene, is diagnostic for a susceptibility to stroke, as is the presence (or absence) of particular splicing variants encoded by the PDE4D gene.

In one embodiment of this method, the level or amount of polypeptide encoded by PDE4D in a test sample is compared with the level or amount of the polypeptide encoded by PDE4D in a control sample. A level or amount of the polypeptide in the test sample that is higher or lower than the level or amount of the polypeptide in the control sample, such that the difference is statistically significant, is indicative of an alteration in the expression of the polypeptide encoded by PDE4D, and is diagnostic for a susceptibility to stroke. Alternatively, the composition of the polypeptide encoded by PDE4D in a test sample is compared with the composition of the polypeptide encoded by PDE4D in a control sample

(e.g., the presence of different splicing variants). A difference in the composition of the polypeptide in the test sample, as compared with the composition of the polypeptide in the control sample, is diagnostic for a susceptibility to stroke. In another embodiment, both the level or amount and the composition of the polypeptide can be assessed in the test sample and in the control sample. A difference in the amount or level of the polypeptide in the test sample, compared to the control sample; a difference in composition in the test sample, compared to the control sample; or both a difference in the amount or level, and a difference in the composition, is indicative of a susceptibility to stroke.

10 Kits (e.g., reagent kits) useful in the methods of diagnosis comprise components useful in any of the methods described herein, including for example, hybridization probes or primers as described herein (e.g., labeled probes or primers), reagents for detection of labeled molecules, restriction enzymes (e.g., for RFLP analysis), allele-specific oligonucleotides, antibodies which bind to mutant or to

15 non-mutant (native) PDE4D polypeptide, means for amplification of nucleic acids comprising PDE4D, or means for analyzing the nucleic acid sequence of PDE4D or for analyzing the amino acid sequence of an PDE4D polypeptide, etc.

#### SCREENING ASSAYS AND AGENTS IDENTIFIED THEREBY

The invention provides methods (also referred to herein as "screening assays") for identifying the presence of a nucleotide that hybridizes to a nucleic acid of the invention, as well as for identifying the presence of a polypeptide encoded by a nucleic acid of the invention. In one embodiment, the presence (or absence) of a nucleic acid molecule of interest (e.g., a nucleic acid that has significant homology with a nucleic acid of the invention) in a sample can be assessed by contacting the

25 sample with a nucleic acid comprising a nucleic acid of the invention (e.g., a nucleic acid having the sequence of SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10, or the complement thereof, or a nucleic acid encoding an amino acid having the sequence of SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or a fragment or variant of such nucleic acids), under

30 stringent conditions as described above, and then assessing the sample for the



presence (or absence) of hybridization. In a preferred embodiment, high stringency conditions are conditions appropriate for selective hybridization. In another embodiment, a sample containing the nucleic acid molecule of interest is contacted with a nucleic acid containing a contiguous nucleotide sequence (e.g., a primer or a probe as described above) that is at least partially complementary to a part of the nucleic acid molecule of interest (e.g., a PDE4D nucleic acid), and the contacted sample is assessed for the presence or absence of hybridization. In a preferred embodiment, the nucleic acid containing a contiguous nucleotide sequence is completely complementary to a part of the nucleic acid molecule of interest.

10 In any of these embodiment, all or a portion of the nucleic acid of interest can be subjected to amplification prior to performing the hybridization.

In another embodiment, the presence (or absence) of a polypeptide of interest, such as a polypeptide of the invention or a fragment or variant thereof, in a sample can be assessed by contacting the sample with an antibody that specifically hybridizes to the polypeptide of interest (e.g., an antibody such as those described above), and then assessing the sample for the presence (or absence) of binding of the antibody to the polypeptide of interest.

In another embodiment, the invention provides methods for identifying agents (e.g., fusion proteins, polypeptides, peptidomimetics, prodrugs, receptors, binding agents, antibodies, small molecules or other drugs, or ribozymes which alter (e.g., increase or decrease) the activity of the polypeptides described herein, or which otherwise interact with the polypeptides herein. For example, such agents can be agents which bind to polypeptides described herein (e.g., PDE4D binding agents); which have a stimulatory or inhibitory effect on, for example, activity of polypeptides of the invention; or which change (e.g., enhance or inhibit) the ability of the polypeptides of the invention to interact with PDE4D binding agents (e.g., receptors or other binding agents); or which alter posttranslational processing of the PDE4D polypeptide (e.g., agents that alter proteolytic processing to direct the polypeptide from where it is normally synthesized to another location in the cell, such as the cell surface; agents that alter proteolytic processing such that more polypeptide is released from the cell, etc.

In one embodiment, the invention provides assays for screening candidate or test agents that bind to or modulate the activity of polypeptides described herein (or biologically active portion(s) thereof), as well as agents identifiable by the assays. Test agents can be obtained using any of the numerous approaches in combinatorial library methods known in the art, including: biological libraries; spatially addressable parallel solid phase or solution phase libraries; synthetic library methods requiring deconvolution; the 'one-bead one-compound' library method; and synthetic library methods using affinity chromatography selection. The biological library approach is limited to polypeptide libraries, while the other four approaches are applicable to polypeptide, non-peptide oligomer or small molecule libraries of compounds (Lam, K.S. (1997) *Anticancer Drug Des.*, 12:145).

In one embodiment, to identify agents which alter the activity of a PDE4D polypeptide, a cell, cell lysate, or solution containing or expressing a PDE4D polypeptide (e.g., SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or another splicing variant encoded by PDE4D), or a fragment or derivative thereof (as described above), can be contacted with an agent to be tested; alternatively, the polypeptide can be contacted directly with the agent to be tested. The level (amount) of PDE4D activity is assessed (e.g., the level (amount) of PDE4D activity is measured, either directly or indirectly), and is compared with the level of activity in a control (i.e., the level of activity of the PDE4D polypeptide or active fragment or derivative thereof in the absence of the agent to be tested). If the level of the activity in the presence of the agent differs, by an amount that is statistically significant, from the level of the activity in the absence of the agent, then the agent is an agent that alters the activity of PDE4D polypeptide. An increase in the level of PDE4D activity relative to a control, indicates that the agent is an agent that enhances (is an agonist of) PDE4D activity. Similarly, a decrease in the level of PDE4D activity relative to a control, indicates that the agent is an agent that inhibits (is an antagonist of) PDE4D activity. In another embodiment, the level of activity of a PDE4D polypeptide or derivative or fragment thereof in the presence of the agent to be tested, is compared with a control level that has previously been established. A level of the activity in the

presence of the agent that differs from the control level by an amount that is statistically significant indicates that the agent alters PDE4D activity.

The present invention also relates to an assay for identifying agents which alter the expression of the PDE4D gene (e.g., antisense nucleic acids, fusion  
5 proteins, polypeptides, peptidomimetics, prodrugs, receptors, binding agents, antibodies, small molecules or other drugs, or ribozymes) which alter (e.g., increase or decrease) expression (e.g., transcription or translation) of the gene or which otherwise interact with the nucleic acids described herein, as well as agents identifiable by the assays. For example, a solution containing a nucleic acid  
10 encoding PDE4D polypeptide (e.g., PDE4D gene) can be contacted with an agent to be tested. The solution can comprise, for example, cells containing the nucleic acid or cell lysate containing the nucleic acid; alternatively, the solution can be another solution which comprises elements necessary for transcription/translation of the nucleic acid. Cells not suspended in solution can also be employed, if desired. The  
15 level and/or pattern of PDE4D expression (e.g., the level and/or pattern of mRNA or of protein expressed, such as the level and/or pattern of different splicing variants) is assessed, and is compared with the level and/or pattern of expression in a control (i.e., the level and/or pattern of the PDE4D expression in the absence of the agent to be tested). If the level and/or pattern in the presence of the agent differs, by an  
20 amount or in a manner that is statistically significant, from the level and/or pattern in the absence of the agent, then the agent is an agent that alters the expression of PDE4D. Enhancement of PDE4D expression indicates that the agent is an agonist of PDE4D activity. Similarly, inhibition of PDE4D expression indicates that the agent is an antagonist of PDE4D activity. In another embodiment, the level and/or  
25 pattern of PDE4D polypeptide(s) (e.g., different splicing variants) in the presence of the agent to be tested, is compared with a control level and/or pattern that has previously been established. A level and/or pattern in the presence of the agent that differs from the control level and/or pattern by an amount or in a manner that is statistically significant indicates that the agent alters PDE4D expression.  
30 In another embodiment of the invention, agents which alter the expression of the PDE4D gene or which otherwise interact with the nucleic acids described herein,

can be identified using a cell, cell lysate, or solution containing a nucleic acid encoding the promoter region of the PDE4D gene operably linked to a reporter gene. After contact with an agent to be tested, the level of expression of the reporter gene (e.g., the level of mRNA or of protein expressed) is assessed, and is compared with  
5 the level of expression in a control (i.e., the level of the expression of the reporter gene in the absence of the agent to be tested). If the level in the presence of the agent differs, by an amount or in a manner that is statistically significant, from the level in the absence of the agent, then the agent is an agent that alters the expression of PDE4D, as indicated by its ability to alter expression of a gene that is operably  
10 linked to the PDE4D gene promoter. Enhancement of the expression of the reporter indicates that the agent is an agonist of PDE4D activity. Similarly, inhibition of the expression of the reporter indicates that the agent is an antagonist of PDE4D activity. In another embodiment, the level of expression of the reporter in the presence of the agent to be tested, is compared with a control level that has  
15 previously been established. A level in the presence of the agent that differs from the control level by an amount or in a manner that is statistically significant indicates that the agent alters PDE4D expression.

Agents which alter the amounts of different splicing variants encoded by PDE4D (e.g., an agent which enhances activity of a first splicing variant, and which  
20 inhibits activity of a second splicing variant), as well as agents which are agonists of activity of a first splicing variant and antagonists of activity of a second splicing variant, can easily be identified using these methods described above.

In other embodiments of the invention, assays can be used to assess the impact of a test agent on the activity of a polypeptide in relation to a PDE4D binding  
25 agent. For example, a cell that expresses a compound that interacts with PDE4D (herein referred to as a "PDE4D binding agent", which can be a polypeptide or other molecule that interacts with PDE4D, such as a receptor) is contacted with PDE4D in the presence of a test agent, and the ability of the test agent to alter the interaction between PDE4D and the PDE4D binding agent is determined. Alternatively, a cell  
30 lysate or a solution containing the PDE4D binding agent, can be used. An agent

which binds to PDE4D or the PDE4D binding agent can alter the interaction by interfering with, or enhancing the ability of PDE4D to bind to, associate with, or otherwise interact with the PDE4D binding agent. Determining the ability of the test agent to bind to PDE4D or an PDE4D binding agent can be accomplished, for example, by coupling the test agent with a radioisotope or enzymatic label such that binding of the test agent to the polypeptide can be determined by detecting the labeled with  $^{125}\text{I}$ ,  $^{35}\text{S}$ ,  $^{14}\text{C}$  or  $^3\text{H}$ , either directly or indirectly, and the radioisotope detected by direct counting of radioemmission or by scintillation counting. Alternatively, test agents can be enzymatically labeled with, for example, horseradish peroxidase, alkaline phosphatase, or luciferase, and the enzymatic label detected by determination of conversion of an appropriate substrate to product. It is also within the scope of this invention to determine the ability of a test agent to interact with the polypeptide without the labeling of any of the interactants. For example, a microphysiometer can be used to detect the interaction of a test agent with PDE4D or a PDE4D binding agent without the labeling of either the test agent, PDE4D, or the PDE4D binding agent. McConnell, H.M. *et al.* (1992) *Science*, 257:1906-1912. As used herein, a "microphysiometer" (e.g., Cytosensor<sup>TM</sup>) is an analytical instrument that measures the rate at which a cell acidifies its environment using a light-addressable potentiometric sensor (LAPS). Changes in this acidification rate can be used as an indicator of the interaction between ligand and polypeptide. See the Examples Section for a discussion of known PDE4D binding partners. Thus, these receptors can be used to screen for compounds that are PDE4D receptor agonists for use in treating stroke or PDE4D receptor antagonists for studying stroke. The linkage data provided herein, for the first time, provides such connection to stroke. Drugs could be designed to regulate PDE4D receptor activation which in turn can be used to regulate signaling pathways and transcription events of genes downstream, such as Cbfa1.

In another embodiment of the invention, assays can be used to identify polypeptides that interact with one or more PDE4D polypeptides, as described herein. For example, a yeast two-hybrid system such as that described by Fields and Song (Fields, S. and Song, O., *Nature* 340:245-246 (1989)) can be used to identify

polypeptides that interact with one or more PDE4D polypeptides. In such a yeast two-hybrid system, vectors are constructed based on the flexibility of a transcription factor which has two functional domains (a DNA binding domain and a transcription activation domain). If the two domains are separated but fused to two different

5 proteins that interact with one another, transcriptional activation can be achieved, and transcription of specific markers (e.g., nutritional markers such as His and Ade, or color markers such as lacZ) can be used to identify the presence of interaction and transcriptional activation. For example, in the methods of the invention, a first vector is used which includes a nucleic acid encoding a DNA binding domain and

10 also an PDE4D polypeptide, splicing variant, or fragment or derivative thereof, and a second vector is used which includes a nucleic acid encoding a transcription activation domain and also a nucleic acid encoding a polypeptide which potentially may interact with the PDE4D polypeptide, splicing variant, or fragment or derivative thereof (e.g., a PDE4D polypeptide binding agent or receptor). Incubation of yeast

15 containing the first vector and the second vector under appropriate conditions (e.g., mating conditions such as used in the Matchmaker™ system from Clontech) allows identification of colonies which express the markers of interest. These colonies can be examined to identify the polypeptide(s) which interact with the PDE4D polypeptide or fragment or derivative thereof. Such polypeptides may be useful as

20 agents which alter the activity of expression of an PDE4D polypeptide, as described above.

In more than one embodiment of the above assay methods of the present invention, it may be desirable to immobilize either PDE4D, the PDE4D binding agent, or other components of the assay on a solid support, in order to facilitate

25 separation of complexed from uncomplexed forms of one or both of the polypeptides, as well as to accommodate automation of the assay. Binding of a test agent to the polypeptide, or interaction of the polypeptide with a binding agent in the presence and absence of a test agent, can be accomplished in any vessel suitable for containing the reactants. Examples of such vessels include microtitre plates, test

30 tubes, and micro-centrifuge tubes. In one embodiment, a fusion protein (e.g., a glutathione-S-transferase fusion protein) can be provided which adds a domain that

allows PDE4D or a PDE4D binding agent to be bound to a matrix or other solid support.

In another embodiment, modulators of expression of nucleic acid molecules of the invention are identified in a method wherein a cell, cell lysate, or solution  
5 containing a nucleic acid encoding PDE4D is contacted with a test agent and the expression of appropriate mRNA or polypeptide (e.g., splicing variant(s)) in the cell, cell lysate, or solution, is determined. The level of expression of appropriate mRNA or polypeptide(s) in the presence of the test agent is compared to the level of expression of mRNA or polypeptide(s) in the absence of the test agent. The test  
10 agent can then be identified as a modulator of expression based on this comparison. For example, when expression of mRNA or polypeptide is greater (statistically significantly greater) in the presence of the test agent than in its absence, the test agent is identified as a stimulator or enhancer of the mRNA or polypeptide expression. Alternatively, when expression of the mRNA or polypeptide is less  
15 (statistically significantly less) in the presence of the test agent than in its absence, the test agent is identified as an inhibitor of the mRNA or polypeptide expression. The level of mRNA or polypeptide expression in the cells can be determined by methods described herein for detecting mRNA or polypeptide.

This invention further pertains to novel agents identified by the  
20 above-described screening assays. Accordingly, it is within the scope of this invention to further use an agent identified as described herein in an appropriate animal model. For example, an agent identified as described herein (e.g., a test agent that is a modulating agent, an antisense nucleic acid molecule, a specific antibody, or a polypeptide-binding agent) can be used in an animal model to  
25 determine the efficacy, toxicity, or side effects of treatment with such an agent. Alternatively, an agent identified as described herein can be used in an animal model to determine the mechanism of action of such an agent. Furthermore, this invention pertains to uses of novel agents identified by the above-described screening assays for treatments as described herein. In addition, an agent identified as described  
30 herein can be used to alter activity of a polypeptide encoded by PDE4D, or to alter expression of PDE4D, by contacting the polypeptide or the gene (or contacting a cell

comprising the polypeptide or the gene) with the agent identified as described herein.

#### PHARMACEUTICAL COMPOSITIONS

The present invention also pertains to pharmaceutical compositions comprising nucleic acids described herein, particularly nucleotides encoding the polypeptides described herein; comprising polypeptides described herein (e.g., one or more of SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14); and/or comprising other splicing variants encoded by PDE4D; and/or an agent that alters (e.g., enhances or inhibits) PDE4D gene expression or PDE4D polypeptide activity as described herein. For instance, a polypeptide, protein (e.g., an PDE4D receptor), an agent that alters PDE4D gene expression, or a PDE4D binding agent or binding partner, fragment, fusion protein or prodrug thereof, or a nucleotide or nucleic acid construct (vector) comprising a nucleotide of the present invention, or an agent that alters PDE4D polypeptide activity, can be formulated with a physiologically acceptable carrier or excipient to prepare a pharmaceutical composition. The carrier and composition can be sterile. The formulation should suit the mode of administration.

Suitable pharmaceutically acceptable carriers include but are not limited to water, salt solutions (e.g., NaCl), saline, buffered saline, alcohols, glycerol, ethanol, gum arabic, vegetable oils, benzyl alcohols, polyethylene glycols, gelatin, carbohydrates such as lactose, amylose or starch, dextrose, magnesium stearate, talc, silicic acid, viscous paraffin, perfume oil, fatty acid esters, hydroxymethylcellulose, polyvinyl pyrrolidone, etc., as well as combinations thereof. The pharmaceutical preparations can, if desired, be mixed with auxiliary agents, e.g., lubricants, preservatives, stabilizers, wetting agents, emulsifiers, salts for influencing osmotic pressure, buffers, coloring, flavoring and/or aromatic substances and the like which do not deleteriously react with the active agents.

The composition, if desired, can also contain minor amounts of wetting or emulsifying agents, or pH buffering agents. The composition can be a liquid solution, suspension, emulsion, tablet, pill, capsule, sustained release formulation, or powder. The composition can be formulated as a suppository, with traditional



binders and carriers such as triglycerides. Oral formulation can include standard carriers such as pharmaceutical grades of mannitol, lactose, starch, magnesium stearate, polyvinyl pyrrolidone, sodium saccharine, cellulose, magnesium carbonate, etc.

- 5           Methods of introduction of these compositions include, but are not limited to, intradermal, intramuscular, intraperitoneal, intraocular, intravenous, subcutaneous, topical, oral and intranasal. Other suitable methods of introduction can also include gene therapy (as described below), rechargeable or biodegradable devices, particle acceleration devices ("gene guns") and slow release polymeric
- 10   devices. The pharmaceutical compositions of this invention can also be administered as part of a combinatorial therapy with other agents.

          The composition can be formulated in accordance with the routine procedures as a pharmaceutical composition adapted for administration to human beings. For example, compositions for intravenous administration typically are

15   solutions in sterile isotonic aqueous buffer. Where necessary, the composition may also include a solubilizing agent and a local anesthetic to ease pain at the site of the injection. Generally, the ingredients are supplied either separately or mixed together in unit dosage form, for example, as a dry lyophilized powder or water free concentrate in a hermetically sealed container such as an ampule or sachette indicat-

20   ing the quantity of active agent. Where the composition is to be administered by infusion, it can be dispensed with an infusion bottle containing sterile pharmaceutical grade water, saline or dextrose/water. Where the composition is administered by injection, an ampule of sterile water for injection or saline can be provided so that the ingredients may be mixed prior to administration.

- 25           For topical application, nonsprayable forms, viscous to semi-solid or solid forms comprising a carrier compatible with topical application and having a dynamic viscosity preferably greater than water, can be employed. Suitable formulations include but are not limited to solutions, suspensions, emulsions, creams, ointments, powders, enemas, lotions, sols, liniments, salves, aerosols, etc.,
- 30   which are, if desired, sterilized or mixed with auxiliary agents, e.g., preservatives, stabilizers, wetting agents, buffers or salts for influencing osmotic pressure, etc. The

agent may be incorporated into a cosmetic formulation. For topical application, also suitable are sprayable aerosol preparations wherein the active ingredient, preferably in combination with a solid or liquid inert carrier material, is packaged in a squeeze bottle or in admixture with a pressurized volatile, normally gaseous propellant, e.g.,  
5 pressurized air.

Agents described herein can be formulated as neutral or salt forms. Pharmaceutically acceptable salts include those formed with free amino groups such as those derived from hydrochloric, phosphoric, acetic, oxalic, tartaric acids, etc., and those formed with free carboxyl groups such as those derived from sodium,  
10 potassium, ammonium, calcium, ferric hydroxides, isopropylamine, triethylamine, 2-ethylamino ethanol, histidine, procaine, etc.

The agents are administered in a therapeutically effective amount. The amount of agents which will be therapeutically effective in the treatment of a particular disorder or condition will depend on the nature of the disorder or  
15 condition, and can be determined by standard clinical techniques. In addition, *in vitro* or *in vivo* assays may optionally be employed to help identify optimal dosage ranges. The precise dose to be employed in the formulation will also depend on the route of administration, and the seriousness of the symptoms of stroke, and should be decided according to the judgment of a practitioner and each patient's  
20 circumstances. Effective doses may be extrapolated from dose-response curves derived from *in vitro* or animal model test systems.

The invention also provides a pharmaceutical pack or kit comprising one or more containers filled with one or more of the ingredients of the pharmaceutical compositions of the invention. Optionally associated with such container(s) can be a  
25 notice in the form prescribed by a governmental agency regulating the manufacture, use or sale of pharmaceuticals or biological products, which notice reflects approval by the agency of manufacture, use or sale for human administration. The pack or kit can be labeled with information regarding mode of administration, sequence of drug administration (e.g., separately, sequentially or concurrently), or the like. The pack  
30 or kit may also include means for reminding the patient to take the therapy. The pack or kit can be a single unit dosage of the combination therapy or it can be a

plurality of unit dosages. In particular, the agents can be separated, mixed together in any combination, present in a single vial or tablet. Agents assembled in a blister pack or other dispensing means is preferred. For the purpose of this invention, unit dosage is intended to mean a dosage that is dependent on the individual

5 pharmacodynamics of each agent and administered in FDA approved dosages in standard time courses.

#### METHODS OF THERAPY

The present invention also pertains to methods of treatment (prophylactic and/or therapeutic) for stroke, particularly ischemic and TIA, using a PDE4D

10 therapeutic agent. A "PDE4D therapeutic agent" is an agent that alters (e.g., enhances or inhibits) PDE4D polypeptide activity and/or PDE4D gene expression, as described herein (e.g., a PDE4D agonist or antagonist). PDE4D therapeutic agents can alter PDE4D polypeptide activity or gene expression by a variety of

15 means, such as, for example, by providing additional PDE4D polypeptide or by upregulating the transcription or translation of the PDE4D gene; by altering posttranslational processing of the PDE4D polypeptide; by altering transcription of PDE4D splicing variants; or by interfering with PDE4D polypeptide activity (e.g., by binding to a PDE4D polypeptide), or by downregulating the transcription or

20 translation of the PDE4D gene. Representative PDE4D therapeutic agents include the following:

nucleic acids or fragments or derivatives thereof described herein, particularly nucleotides encoding the polypeptides described herein and vectors comprising such nucleic acids (e.g., a gene, cDNA, and/or mRNA, such as a nucleic

25 acid encoding a PDE4D polypeptide or active fragment or derivative thereof, or an oligonucleotide; for example, SEQ ID NO: 1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10 or a nucleic acid encoding SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14, or fragments or derivatives thereof);

polypeptides described herein (e.g., one or more of SEQ ID NO: 2, 3, 4, 5, 6,

30 7, 8, 9, 10, 12 or 14, and/or other splicing variants encoded by PDE4D, or fragments or derivatives thereof);

other polypeptides (e.g., PDE4D receptors); PDE4D binding agents; peptidomimetics; fusion proteins or prodrugs thereof; antibodies (e.g., an antibody to a mutant PDE4D polypeptide, or an antibody to a non-mutant PDE4D polypeptide, or an antibody to a particular splicing variant encoded by PDE4D, as described  
5 above); ribozymes; other small molecules;

and other agents that alter (e.g., enhance or inhibit) PDE4D gene expression or polypeptide activity, or that regulate transcription of PDE4D splicing variants (e.g., agents that affect which splicing variants are expressed, or that affect the amount of each splicing variant that is expressed.

10 More than one PDE4D therapeutic agent can be used concurrently, if desired.

The PDE4D therapeutic agent that is a nucleic acid is used in the treatment of stroke. The term, "treatment" as used herein, refers not only to ameliorating symptoms associated with the disease, but also preventing or delaying the onset of the disease, and also lessening the severity or frequency of symptoms of the disease.

15 The therapy is designed to alter (e.g., inhibit or enhance), replace or supplement activity of a PDE4D polypeptide in an individual. For example, a PDE4D therapeutic agent can be administered in order to upregulate or increase the expression or availability of the PDE4D gene or of specific splicing variants of PDE4D, or, conversely, to downregulate or decrease the expression or availability of  
20 the PDE4D gene or specific splicing variants of PDE4D. Upregulation or increasing expression or availability of a native PDE4D gene or of a particular splicing variant could interfere with or compensate for the expression or activity of a defective gene or another splicing variant; downregulation or decreasing expression or availability of a native PDE4D gene or of a particular splicing variant could minimize the  
25 expression or activity of a defective gene or the particular splicing variant and thereby minimize the impact of the defective gene or the particular splicing variant.

The PDE4D therapeutic agent(s) are administered in a therapeutically effective amount (i.e., an amount that is sufficient to treat the disease, such as by ameliorating symptoms associated with the disease, preventing or delaying the onset  
30 of the disease, and/or also lessening the severity or frequency of symptoms of the disease). The amount which will be therapeutically effective in the treatment of a

particular individual's disorder or condition will depend on the symptoms and severity of the disease, and can be determined by standard clinical techniques. In addition, *in vitro* or *in vivo* assays may optionally be employed to help identify optimal dosage ranges. The precise dose to be employed in the formulation will also  
5 depend on the route of administration, and the seriousness of the disease or disorder, and should be decided according to the judgment of a practitioner and each patient's circumstances. Effective doses may be extrapolated from dose-response curves derived from *in vitro* or animal model test systems.

In one embodiment, a nucleic acid of the invention (e.g., a nucleic acid  
10 encoding a PDE4D polypeptide, such as SEQ ID NO:1 which may optionally comprise at least one polymorphism shown in Tables 9 and 10; or another nucleic acid that encodes a PDE4D polypeptide or a splicing variant, derivative or fragment thereof, such as a nucleic acid encoding SEQ ID NO: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 or 14) can be used, either alone or in a pharmaceutical composition as described above.  
15 For example, PDE4D or a cDNA encoding the PDE4D polypeptide, either by itself or included within a vector, can be introduced into cells (either *in vitro* or *in vivo*) such that the cells produce native PDE4D polypeptide. If necessary, cells that have been transformed with the gene or cDNA or a vector comprising the gene or cDNA can be introduced (or re-introduced) into an individual affected with the disease.  
20 Thus, cells which, in nature, lack native PDE4D expression and activity, or have mutant PDE4D expression and activity, or have expression of a disease-associated PDE4D splicing variant, can be engineered to express PDE4D polypeptide or an active fragment of the PDE4D polypeptide (or a different variant of PDE4D polypeptide). In a preferred embodiment, nucleic acid encoding the PDE4D  
25 polypeptide, or an active fragment or derivative thereof, can be introduced into an expression vector, such as a viral vector, and the vector can be introduced into appropriate cells in an animal. Other gene transfer systems, including viral and nonviral transfer systems, can be used. Alternatively, nonviral gene transfer methods, such as calcium phosphate coprecipitation, mechanical techniques (e.g.,  
30 microinjection); membrane fusion-mediated transfer via liposomes; or direct DNA uptake, can also be used.

Alternatively, in another embodiment of the invention, a nucleic acid of the invention; a nucleic acid complementary to a nucleic acid of the invention; or a portion of such a nucleic acid (e.g., an oligonucleotide as described below), can be used in "antisense" therapy, in which a nucleic acid (e.g., an oligonucleotide) which  
5 specifically hybridizes to the mRNA and/or genomic DNA of PDE4D is administered or generated *in situ*. The antisense nucleic acid that specifically hybridizes to the mRNA and/or DNA inhibits expression of the PDE4D polypeptide, e.g., by inhibiting translation and/or transcription. Binding of the antisense nucleic acid can be by conventional base pair complementarity, or, for example, in the case  
10 of binding to DNA duplexes, through specific interaction in the major groove of the double helix.

An antisense construct of the present invention can be delivered, for example, as an expression plasmid as described above. When the plasmid is transcribed in the cell, it produces RNA which is complementary to a portion of the  
15 mRNA and/or DNA which encodes PDE4D polypeptide. Alternatively, the antisense construct can be an oligonucleotide probe which is generated *ex vivo* and introduced into cells; it then inhibits expression by hybridizing with the mRNA and/or genomic DNA of PDE4D. In one embodiment, the oligonucleotide probes are modified oligonucleotides which are resistant to endogenous nucleases, e.g.  
20 exonucleases and/or endonucleases, thereby rendering them stable *in vivo*. Exemplary nucleic acid molecules for use as antisense oligonucleotides are phosphoramidate, phosphothioate and methylphosphonate analogs of DNA (see also U.S. Pat. Nos. 5,176,996; 5,264,564; and 5,256,775). Additionally, general approaches to constructing oligomers useful in antisense therapy are also described,  
25 for example, by Van der Krol *et al.* ((1988) *Biotechniques* 6:958-976); and Stein *et al.* ((1988) *Cancer Res* 48:2659-2668). With respect to antisense DNA, oligodeoxyribonucleotides derived from the translation initiation site, e.g. between the -10 and +10 regions of PDE4D sequence, are preferred.

To perform antisense therapy, oligonucleotides (mRNA, cDNA or DNA) are  
30 designed that are complementary to mRNA encoding PDE4D. The antisense oligonucleotides bind to PDE4D mRNA transcripts and prevent translation.

Absolute complementarity, although preferred, is not required. a sequence "complementary" to a portion of an RNA, as referred to herein, indicates that a sequence has sufficient complementarity to be able to hybridize with the RNA, forming a stable duplex; in the case of double-stranded antisense nucleic acids, a single strand of the duplex DNA may thus be tested, or triplex formation may be assayed. The ability to hybridize will depend on both the degree of complementarity and the length of the antisense nucleic acid, as described in detail above. Generally, the longer the hybridizing nucleic acid, the more base mismatches with an RNA it may contain and still form a stable duplex (or triplex, as the case may be). One skilled in the art can ascertain a tolerable degree of mismatch by use of standard procedures.

The oligonucleotides used in antisense therapy can be DNA, RNA, or chimeric mixtures or derivatives or modified versions thereof, single-stranded or double-stranded. The oligonucleotides can be modified at the base moiety, sugar moiety, or phosphate backbone, for example, to improve stability of the molecule, hybridization, etc. The oligonucleotides can include other appended groups such as peptides (e.g. for targeting host cell receptors *in vivo*), or agents facilitating transport across the cell membrane (see, e.g., Letsinger *et al.* (1989) *Proc. Natl. Acad. Sci. USA* 86:6553-6556; Lemaitre *et al.*, (1987), *Proc. Natl. Acad. Sci. USA* 84:648-652; PCT International Publication No. W088/09810) or the blood-brain barrier (see, e.g., PCT International Publication No. W089/10134), or hybridization-triggered cleavage agents (see, e.g., Krol *et al.* (1988) *BioTechniques* 6:958-976) or intercalating agents. (See, e.g., Zon, (1988), *Pharm. Res.* 5:539-549). To this end, the oligonucleotide may be conjugated to another molecule (e.g., a peptide, hybridization triggered cross-linking agent, transport agent, hybridization-triggered cleavage agent).

The antisense molecules are delivered to cells which express PDE4D *in vivo*. A number of methods can be used for delivering antisense DNA or RNA to cells; e.g., antisense molecules can be injected directly into the tissue site, or modified antisense molecules, designed to target the desired cells (e.g., antisense linked to peptides or antibodies that specifically bind receptors or antigens expressed on the

target cell surface) can be administered systematically. Alternatively, in a preferred embodiment, a recombinant DNA construct is utilized in which the antisense oligonucleotide is placed under the control of a strong promoter (e.g., pol III or pol II). The use of such a construct to transfect target cells in the patient results in the transcription of sufficient amounts of single stranded RNAs that will form complementary base pairs with the endogenous PDE4D transcripts and thereby prevent translation of the PDE4D mRNA. For example, a vector can be introduced *in vivo* such that it is taken up by a cell and directs the transcription of an antisense RNA. Such a vector can remain episomal or become chromosomally integrated, as long as it can be transcribed to produce the desired antisense RNA. Such vectors can be constructed by recombinant DNA technology methods standard in the art and described above. For example, a plasmid, cosmid, YAC or viral vector can be used to prepare the recombinant DNA construct which can be introduced directly into the tissue site. Alternatively, viral vectors can be used which selectively infect the desired tissue, in which case administration may be accomplished by another route (e.g., systematically).

Endogenous PDE4D expression can also be reduced by inactivating or "knocking out" PDE4D or its promoter using targeted homologous recombination (e.g., see Smithies *et al.* (1985) *Nature* 317:230-234; Thomas & Capecchi (1987) *Cell* 51:503-512; Thompson *et al.* (1989) *Cell* 5:313-321). For example, a mutant, non-functional PDE4D (or a completely unrelated DNA sequence) flanked by DNA homologous to the endogenous PDE4D (either the coding regions or regulatory regions of PDE4D) can be used, with or without a selectable marker and/or a negative selectable marker, to transfect cells that express PDE4D *in vivo*. Insertion of the DNA construct, via targeted homologous recombination, results in inactivation of PDE4D. The recombinant DNA constructs can be directly administered or targeted to the required site *in vivo* using appropriate vectors, as described above. Alternatively, expression of non-mutant PDE4D can be increased using a similar method: targeted homologous recombination can be used to insert a DNA construct comprising a non-mutant, functional PDE4D (e.g., a gene having SEQ ID NO:1 which may optionally comprise at least one polymorphism shown in



Tables 9 and 10), or a portion thereof, in place of a mutant PDE4D in the cell, as described above. In another embodiment, targeted homologous recombination can be used to insert a DNA construct comprising a nucleic acid that encodes a PDE4D polypeptide variant that differs from that present in the cell.

5           Alternatively, endogenous PDE4D expression can be reduced by targeting deoxyribonucleotide sequences complementary to the regulatory region of PDE4D (i.e., the PDE4D promoter and/or enhancers) to form triple helical structures that prevent transcription of PDE4D in target cells in the body. (See generally, Helene, C. (1991) *Anticancer Drug Des.*, 6(6):569-84; Helene, C., *et al.* (1992) *Ann. N.Y. Acad. Sci.*, 660:27-36; and Maher, L. J. (1992) *Bioassays* 14(12):807-15). Likewise, the antisense constructs described herein, by antagonizing the normal biological activity of one of the PDE4D proteins, can be used in the manipulation of tissue, e.g. tissue differentiation, both *in vivo* and *for ex vivo* tissue cultures. Furthermore, the anti-sense techniques (e.g. microinjection of antisense molecules, or transfection  
15 with plasmids whose transcripts are anti-sense with regard to a PDE4D mRNA or gene sequence) can be used to investigate role of PDE4D in developmental events, as well as the normal cellular function of PDE4D in adult tissue. Such techniques can be utilized in cell culture, but can also be used in the creation of transgenic animals.

20           In yet another embodiment of the invention, other PDE4D therapeutic agents as described herein can also be used in the treatment or prevention of stroke. The therapeutic agents can be delivered in a composition, as described above, or by themselves. They can be administered systemically, or can be targeted to a particular tissue. The therapeutic agents can be produced by a variety of means,  
25 including chemical synthesis; recombinant production; *in vivo* production (e.g., a transgenic animal, such as U.S. Pat. No. 4,873,316 to Meade *et al.*), for example, and can be isolated using standard means such as those described herein.

          A combination of any of the above methods of treatment (e.g., administration of non-mutant PDE4D polypeptide in conjunction with antisense therapy targeting  
30 mutant PDE4D mRNA; administration of a first splicing variant encoded by PDE4D

in conjunction with antisense therapy targeting a second splicing encoded by PDE4D), can also be used.

The invention will be further described by the following non-limiting examples. The teachings of all publications cited herein are incorporated herein by  
5 reference in their entirety.

## EXAMPLES

### EXAMPLE 1 IDENTIFICATION OF THE PDE4D GENE WITH LINKAGE TO STROKE

#### *Icelandic Stroke Patients and Phenotype Characterization*

10 A population-based list containing 2543 Icelandic stroke patients, diagnosed from 1993 through 1997, was derived from two major hospitals in Iceland and the Icelandic Heart Association (the study was approved by the Icelandic Data Protection Commission of Iceland and the National Bioethics Committee). Patients with hemorrhagic stroke represented 6% of all patients (patients with the Icelandic  
15 type of hereditary cerebral hemorrhage with amyloidosis and patients with subarachnoid hemorrhage were excluded). Ischemic stroke accounted for 67% of the total patients and TIAs 27%. The distribution of stroke subtypes in this study is similar to that reported in other Caucasian populations (Mohr, J.P., *et al.*, *Neurology*, 28:754-762 (1978); L. R. Caplan, *In Stroke, A Clinical Approach*  
20 (Butterworth-Heinemann, Stoneham, MA, ed 3, (1993)).

The list of approximately 2000 living patients was run through our computerized genealogy database. A comprehensive genealogy database that has been established at deCODE genetics, Inc. was used to cluster the patients in pedigrees. Each version of the computerized genealogy database is reversibly  
25 encrypted by the Data Protection Commission of Iceland before arriving at the laboratory (Gulcher, J.R., *et al.*, *Eur. J. Hum. Genet.* 8:739 (2000)). The database uses a patient list, with encrypted personal identifiers, as input, and recursive algorithms to find all ancestors in the database who are related to any member on the

input list within a given number of generations back (Gulcher, J.R., and Stefansson, K., *Clin. Chem. Lab. Med.* 36:523 (1998)) covering the whole Icelandic nation. The cluster function then searches for ancestors who are common to any two or more members of the input list. One hundred and seventy-nine families with two or more  
5 living patients were chosen for the study with a total of 476 patients connected within 6 meioses (6 meioses connect second cousins). Informed consent was obtained from all patients and their relatives whose DNA samples were used in the linkage scan. The mean separation between affected pairs is 4.8 meioses. Of the patients selected for the study 73% had ischemic strokes, 23% TIAs and 4%  
10 hemorrhagic strokes.

In the selected families, hemorrhagic stroke patients clustered with ischemic stroke and TIA patients, and there were no families with a striking preponderance of hemorrhagic stroke or of the subtypes of ischemic stroke. Patients with ischemic stroke were reclassified according to the TOAST (Trial of Org 10172 in Acute  
15 Stroke Treatment) sub-classification system for stroke (Adams, H.P., Jr., *et al.*, *Stroke*, 24:34-41 (1993)). This system includes five categories: (1) large-artery atherosclerosis, (2) cardioembolism, (3) small-artery occlusion (lacune), (4) stroke of other determined etiology and (5) stroke of undetermined etiology. The diagnoses were based on clinical features and on data from ancillary diagnostic studies.  
20 Patients defined with large-artery atherosclerosis had clinical and brain imaging findings of cerebral cortical dysfunction and either significant (>70%) stenosis (this is a stricter criteria than used in TOAST where 50% stenosis is the cut-off) or occlusion of a major brain artery or branch cortical artery. Potential sources of cardiogenic embolism were excluded. The category cardioembolism included  
25 patients with at least one cardiac source for an embolus and potential large-artery sources of thrombosis and embolism was eliminated. Patients with small-artery occlusion had one of the traditional clinical lacunar syndromes and no evidence of cerebral cortical dysfunction. Potential cardiac source of embolus and stenosis >70% in an ipsilateral extracranial artery was excluded. The category, acute stroke  
30 of other determined etiology, included patients with rare causes of stroke and patients with two or more potential causes of stroke. If the causes of stroke could

not be determined despite extensive evaluation patients were included in the category stroke of undetermined etiology. Fig. 1A and Fig. 1B display two pedigrees each affected by several of the stroke subtypes, including hemorrhagic stroke. Apparently what is inherited in stroke is the broadly defined phenotype.

## 5 *Genome-wide scan*

- A genome-wide scan was performed using a framework map of about 1000 microsatellite markers. The DNA samples were genotyped using approximately 1000 fluorescently labelled primers. A microsatellite screening set based in part on the ABI Linkage Marker (v2) screening set and the ABI Linkage Marker (v2) intercalating set in combination with 500 custom-made markers were developed. All markers were extensively tested for robustness, ease of scoring, and efficiency in 4X multiplex PCR reactions. In the framework marker set, the average spacing between markers was approximately 4 cM with no gaps larger than 10 cM. Marker positions were obtained from the Marshfield map
- 15 (<http://research.marshfieldclinic.org/genetics>) except for a three-marker putative inversion on chromosome 8 (Jonsdottir, G.M., *et al.*, *Am. J. Hum. Genet.*, 67 (Suppl. 2):332 (2000); Yu, A., *et al.*, *Am. J. Hum. Genet.*, 67 (Suppl. 2):10 (2000). The PCR amplifications were set up, run and pooled on Perkin Elmer/Applied Biosystems 877 Integrated Catalyst Thermocyclers with a similar protocol for each marker. The
- 20 reaction volume used was 5 µl and for each PCR reaction 20 ng of genomic DNA was amplified in the presence of 2 pmol of each primer, 0.25 U AMPLITAQ GOLD (DNA polymerase; trademark of Roche Molecular Systems), 0.2 mM dNTPs and 2.5 mM MgCl<sub>2</sub> (buffer was supplied by manufacturer). The PCR conditions used were 95°C for 10 minutes, then 37 cycles of 15 s at 94°C, 30s at 55°C and 1 min at 72°C.
- 25 The PCR products were supplemented with the internal size standard and the pools were separated and detected on Applied Biosystems model 377 Sequencer using v3.0 GENESCAN (peak calling software; trademark of Applied Biosystems). Alleles were called automatically with the TRUEALLELE (computer program for alleles identification; trademark of Cybegenetics, Inc.) program ([www.cybgen.com](http://www.cybgen.com)),
- 30 and the program, DECODE-GT (computer editing program that works downstream

of the TRUEALLELE program; trademark of deCODE genetics, Inc.), was used to fractionate according to quality and edit the called genotypes (Palsson, B., *et al.*, *Genome Res.* 9:1002 (1999)). At least 180 Icelandic controls were genotyped to derive allelic frequencies.

5 A total of 476 patients and 438 relatives were genotyped. The data was analyzed and the statistical significance determined by applying affecteds-only allele-sharing methods (which does not specify any particular inheritance model) implemented in the ALLEGRO (computer program for multipoint linkage analysis; trademark of deCODE genetics, Inc.) program which calculates lod scores based on  
10 multipoint calculations. Our baseline linkage analysis uses the  $S_{\text{pairs}}$  scoring function (Kruglyak, L., *et al.*, *Am. J. Hum. Genet.*, 58:1347 (1996)), the exponential allele-sharing model (Kong, A. and Cox, N.J., *Am. J. Hum. Genet.*, 61:1179 (1997)), and a family weighting scheme which is halfway, on the log scale, between weighting each affected pair equally and weighting each family equally. In the  
15 analysis we treat all genotyped individuals who are not affected as "unknown". All linkage analyses in this paper were performed using multipoint calculation with the program ALLEGRO (deCODE genetics, Inc.) (Gudbjartsson, D.F., *et al.*, *Nat. Genet.* 25:12 (2000)).

The allele sharing lod scores for the genome scan using the framework map  
20 showed three regions that achieved a lod score above 1.0. Two of these regions are on chromosome 5q. The first peak is at approximately 69 cM with a lod score of 2.00. The second peak is at 99 cM with a lod score of 1.14. The third region is on chromosome 14q at 55 cM with a lod score of 1.24.

The information for linkage at the 5q locus was increased by genotyping an  
25 additional 45 markers over a 45 cM segment which spanned both peaks. The information used here is defined by Nicolae (D. L. Nicolae, Thesis, University of Chicago (1999)) and has been demonstrated to be asymptotically equivalent to a classical measure of the fraction of missing information (Dempster, A.P., *et al.*, *J. R. Statist. Soc. B*, 39:1 (1977)). While the lod score at the second peak dropped slightly  
30 to around 1.05, the lod score at the first peak increased to 3.39. However, close inspection of our results suggested that not only does the Marshfield genetic map

(<http://research.marshfieldclinic.org/genetics>) lack resolution (many markers assigned the same map location), but also there may be some errors in their order. As a result, the genetic length of the region estimated using our material was substantially greater than what is reported. By modifying the ALLEGRO (deCODE  
5 genetics, Inc.) program, we applied the EM algorithm to our data to estimate the genetic distances between markers. We found that our estimate of the genetic length of the region was substantially longer than that given in the Marshfield map. This indicates a problem with marker order because, in general, incorrect marker order leads to an increased number of apparent crossovers and increases the apparent  
10 genetic length.

#### *Physical and genetic mapping*

The marker order and inter-marker distances were improved by constructing high density physical and genetic maps over a 20 cM region between markers D5S474 and D5S2046. A combination of data from coincident hybridizations of  
15 BAC membranes using a high density of STSs and the Fingerprinting Contig database was used to build large contigs of BACs from the RPCI-11 library. The order of the linkage markers was also confirmed by high-resolution genetic mapping using the stroke families supplemented with over 112 other large nuclear families (Fig. 3). High resolution genetic mapping was used both to anchor and place in  
20 order contigs found by physical mapping as well as to obtain accurate inter-marker distances for the correctly ordered markers. Data from 112 Icelandic nuclear families (sibships with their parents, containing from two to seven siblings) were analyzed together with the nuclear families available within the stroke pedigrees. For the purpose of genetic mapping the 112 nuclear families alone provide 588  
25 meioses, and the total number of meioses available for mapping was over 2000. By comparison, the Marshfield genetic map was constructed based on 182 meioses. The large number of meiotic events within our families provides the ability to map markers to the resolution of 0.5 to 1.0 cM. Combining this information with the physical map resulted in a highly reliable order of markers and inter-marker  
30 distances within this 20 cM region. Linkage markers common to the genetic and

physical maps were used to anchor and place in order four of the physically mapped contigs. By integrating the genetic and physical maps a most likely order of 30 polymorphic markers was derived (Fig. 3).

BAC contigs were generated by a method that combines coincident primer  
5 hybridization with data mining. The RPCI-11 human male BAC library segments 1  
& 2 (Pieter de Jong, Children's Hospital Oakland Research Institute) containing  
about 200,000 clones with a 12X coverage, were gridded using a 6x6 double offset  
pattern in 23 cm x 23 cm membranes with a BioGrid robot (Biorobotics Ltd.,  
Cambridge, UK). Initially, hybridizations were performed with markers in the  
10 region of interest according to their location in the Weizmann Institute Unified  
Database (<http://bioinformatics.weizmann.ac.il/udb/>). Primer sequences were  
analyzed and discarded according to their content of known repeats, *E. coli* and  
vector sequences (the analysis was performed using software developed at deCODE  
genetics). One hundred and fifty markers in the region (30 polymorphic markers  
15 used in linkage and 120 generated from STSs) separated by an average of 130 kb  
were used. The selected markers were used to generate two <sup>32</sup>P labelled probes, F  
that contained the pooled forward primers and R that contained the pooled reverse  
primers. Reading of positive signals was performed automatically from digitized  
images of resulting autoradiograms by informatics tools developed at deCODE  
20 genetics. The coincident signals in both hybridizations were selected as positive  
clones. A set of overlapping clones was assembled through a combination of  
hybridization and BAC fingerprint walking. Fingerprints of positive clones were  
analyzed using the FPC database developed at the Sanger Center. Data from FPC  
contigs prebuilt with a cutoff of 3e-12 and from sequence datamining was integrated  
25 with the hybridization results. BACs in the region detected by data mining and  
hybridization were re-arrayed using a Multiprobe IIx robot (Packard, Meriden, CT).  
Small membranes (8 cm x 12 cm) were gridded in 6x6 double offset pattern and  
individually hybridized with the markers of interest. Positive patterns were  
transferred using transparencies to an Excel file containing macros to provide BAC  
30 to marker associations. A visual map was generated by combining the hybridization,  
fingerprinting and sequence data. New markers were generated from BAC end

sequences to close the gap. After several rounds of hybridization positive BACs were assembled into 7 contigs covering approximately 20 Mb. Thirty of the polymorphic markers used in linkage were assigned to four of the contigs (Fig. 3). Estimation of contig lengths and distance between markers assigned to them was  
5 based on the FPC program.

Twenty - seven of our 30 linkage markers mapped to three contigs in the October 2000 release from UCSC, the UC Santa Cruz (UCSC) draft assembly (<http://genome.ucsc.edu/>). The marker order within the contigs is in agreement with our order with the exception of two markers. Although the UCSC assemblies are  
10 improving, some contigs have incorrect order, orientation, or contig assembly. We believe that high resolution genetic mapping and perhaps focused hybridization experiments are still necessary to confirm accuracy of sequence assemblies. In addition, high resolution genetic mapping provides better estimates of inter-marker genetic distances that are also important for linkage analysis (Halpern, J. and  
15 Whittermore, A.S., *Hum. Hered.* 49:194 (1999); Daw, E.W., *et al.*, *Genet. Epidemiol.* 19:366 (2000)).

#### *Final linkage results and localization*

Linkage analysis including genotypes from the higher density markers using the deCODE marker order resulted in a lod score of 4.40 ( $P = 3.9 \times 10^{-6}$ ) on  
20 chromosome 5q12 at the marker D5S2080. The reported P value is part of the output of the ALLEGRO (deCODE genetics, Inc.) program. It is obtained by comparing the observed lod score to the distribution of the lod score calculated under the null hypothesis of no linkage and the assumption that the descent information is complete. In this case, it agrees very well with the P value that one  
25 would obtain by large sample approximation. The allele sharing lod score is the log, base 10, of an one-degree of freedom likelihood ratio. Hence, with a one-sided test, a lod score of 4.03 corresponds to a Z score of  $\sqrt{2 \cdot \log(10) \cdot 4.03} = 4.31$ . Normal approximation gives a P value of  $8.2 \times 10^{-6}$ . The locus has been designated as *STRK1*. With the addition of these extra markers, it was possible to narrow down  
30 the region to a segment less than 6 cM, from D5S1474 to D5S398, as defined by one



drop in lod. Analyses using the marker orders based on publicly available marker maps gave lower lod scores, ranging from 2.78 to 3.94.

To further investigate the contribution of this susceptibility locus to stroke, a range of parametric models were fitted to the data. However, all analyses were still  
5 *affecteds only* in the sense that individuals were either classified as affecteds or having unknown disease status. A lod score of 4.08 was obtained with a dominant model where the allele frequency of the susceptibility gene was assumed to be 5% and carriers of the mutation were assumed to have seven-fold the risk of a non-carrier. By inspecting the individual families, no obvious correlation was seen  
10 between families which contribute positively to the linkage results with the prevalence of hypertension, diabetes or hyperlipidemias. When the data were reanalyzed with the hemorrhagic stroke patients removed, the allele sharing lod score increased to 4.86 at D5S2080. Although this 0.46 increase in log score suggests that *STRK1* is involved primarily in ischemic stroke and TIAs, it is not  
15 statistically significant based on simulations (one sided P equals 0.09). In order to assess whether such a change in lod score would be likely to occur by chance we selected 1000 random sets of 22 patients whose status we then changed to "unknown" in an analysis. The P value we present is the fraction of the 1000 simulations which produce a lod score increase at the peak locus equal to or greater  
20 than that which we observed by changing the affection status of the 22 hemorrhagic stroke patients to "unknown".

#### *Identification of Allelic Association*

All microsatellite markers in the approx. 6 cM interval (Fig. 3, markers from D5S398 to D5S1474) were analysed with respect to allelic association.

Table 1. The association of a fixed allele, with the stroke patients compared with population controls.

Marker	Location (cM)	Allele (A)	p-value	Risk ratio	Total no. of patients	Patients with A	Total no. of controls	Controls with A
AC022125-3	68.3	0	2.83e-03	1.28	749	412	504	251
D5S2000	68.5	0	3.26e-03	1.27	717	302	555	196
D5S2091	68.6	0	5.44e-04	1.30	757	342	534	198
D17-C	68.8	0	1.91e-03	1.34	721	436	469	249
D17-B	68.9	0	1.30e-03	1.26	680	556	509	387
AC008818-1	72.7	0	3.26e-03	1.42	739	379	619	259
D5S1990	73.9	20	3.68e-03	1.68	756	75	623	36

Comment:

The alleles have conventional values resulting after subtracting the CEPH data.

#### *Identification of Microsatellite and SNP Haplotypes Within the Gene*

Fig. 5 shows a schematic representation of the genetic map showing microsatellite and SNP haplotypes in the region of the stroke gene. Seven haplotypes are shown from the association study of Icelandic patients (804 patients).

- 5 The haplotypes indicated as SW-1 and SW-2 are from an association study on Swedish stroke patients.

A total number of 804 Icelandic patients were analyzed for microsatellite single marker and multimarker association. The number of controls used in the analysis was 504. Each patient had 2 or more close relatives genotyped in order to  
 10 derive haplotypes. The haplotypes were derived using ALLEGRO based haplotype analysis (results shown in Table 2).

Table 2  
Icelandic Patient Association

Markers	Alleles	pAllelic	All Frq Aff	All Frq Ctrl	pCarrier	Carr Frq Aff	Carr Frq Ctrl	# aff	# ctrl
<b>All patients (n=804)</b>									
D5S2000	0	1.12E-04	0.24	0.18	5.36E-04	0.43	0.33	744	429
D5S2091	0	5.28E-04	0.26	0.21	6.10E-04	0.46	0.37	770	478
AC022125-3	0	5.96E-04	0.33	0.27	3.24E-04	0.55	0.45	774	489
D17-C	0	9.93E-04	0.36	0.29	0.007	0.6	0.52	756	395
AC008833-6	0	0.0013	0.67	0.61	0.018	0.88	0.84	781	472
AC008818-1	0	0.0014	0.29	0.24	7.13E-04	0.51	0.41	773	482
AC008829-5	2	0.0063	0.03	0.015	0.005	0.06	0.03	645	474
(1) D5S2000 D5S2091 D17-C D17-B	0000	0.0018	0.17	0.11	0.004	0.3	0.22	552	325
(2) D5S2091 D17-C D17-B	000	9.06E-04	0.19	0.13	0.001	0.34	0.25	597	380
(3) AC008829-5 AC008833-2 AC008833-3	20 14 6	0.0017	0.01	0.002	0.002	0.029	0.004	579	431
(4) AC022125-3 AC008833-6 D5S2000 D5S2091 D17-C	00000	0.00374	0.17	0.13	0.012	0.32	0.24	629	317
(5) D5S2071 AC008879-2 AC008818-1 AC008879-3	-2 0 0 0	0.0031	0.05	0.02	0.004	0.09	0.044	489	362
(6) AC008879-2 AC008818-1 AC008879-3	0 0 0	9.25E-04	0.29	0.23	5.82E-04	0.5	0.4	621	443
(part 7) D5S2107 AC008829-5 AC008833-2	4 2 0	0.0097	0.007	0	0.009	0.01	0	540	422

Swedish patients have also been genotyped and microsatellite single and multimarker association has been analyzed using the E-M algorithm. A total number of 943 Swedish patients (stroke patients and patients with carotid stenosis) and 322 Swedish controls were analyzed (results shown in Table 3).

Table 3  
Swedish Patient Association

Markers	Alleles	pAllelic	All Frq Aff	All Frq Ctrl	# aff	# ctrl
<b>Swedish patients (n=943)</b>						
D5S2000	2	2.39E-03			912	318
(Sw 2) AC022125-3 AC008833-6 D5S2000 D5S2091	0 0 2 0	6.0E-03	0.035	0.014	717	284
(Sw-1) AC008804-2 D17-H D17-G D5S2080	-2 4 -2 10	2.8E-03	0.057	0.053	672	113
AC008804-2 D17-H D17-G	-4 0 -2	3.7E-03	0.056	0.033	700	123

SNP haplotypes within the PDE4D gene have been identified. A total of 95 SNP's typed for approximately 500 patients and 140 controls and E-M algorithm was used to analyze the genotype (results shown in Table 4). Selected SNP's found in excess in patients (based on the E-M algorithm) were typed for a subset of  
5 relatives in order to derive haplotypes for haplotype analysis (results are shown in Table 5). SNP haplotypes 1 and 2 are located upstream of D6 exon, SNP haplotype 3 is located upstream of D8 exon and stretches over it, SNP haplotype 4 stretches over LF1 exon.

Table 4  
SNP genotype analysis based E-M algorithm

SNP haplotype	Position	Alleles in Haploypete	pAllelic	All Frq Aff	All Frq Ctrl	#Aff	#Ctrl
SNP-1	1273143- 1269965	122303	9.9E-03	0.32	0.25	505	155
SNP-2	1260358- 1254849	10323	2.8E-02	0.33	0.26	631	131
SNP-3	1399767- 1318510	2313002	8.9E-03	0.26	0.18	759	149
SNP-4	1422008- 1410824	111330	3E-02	0.56	0.48	344	128

Table 5A  
SNP haplotype analysis

SNP haplo- type	Position	Alleles in haplo- type	pAllelic	All Frq Aff	All Frq Ctrl	Carr Frq Aff	Carr Frq Ctrl	# Aff	# Ctrl
SNP-1	1273143- 1269965	122303	4.27E-04	0.31	0.18	0.49	0.308	111	149
SNP-2	1260358- 1254849	10323	0.0043	0.32	0.2	0.508	0.35	114	128

Table 5B  
SNPs in the identified SNP haplotypes

Haplotype	SNP	Public name if available	Polymorphism	position	Allele
SNP-2	1	new	T/C	1254849	3
SNP-2	2	new	A/G	1257206	2
SNP-2	3	TSC0538885	T/C	1257624	3
SNP-2	4	new	A/C	1259581	0
SNP-2	5	rs244579	T/C	1260358	1
SNP1	1	rs35284	T/C	1269965	3
SNP1	2	rs35283	A/G	1270041	0
SNP1	3	rs35281	A/G	1270553	3
SNP1	4	rs35280	G/A	1272125	2
SNP1	5	new	A/G	1272910	2
SNP1	6	rs35279	G/C	1273143	1
SNP3	1	rs255652	A/G	1318510	2
SNP3	2	rs27547	G/A	1371388	0
SNP3	3	rs26695	G/A	1390407	0
SNP3	4	rs27773	C/T	1391020	3
SNP3	5	rs1471430	C/G	1391818	1
SNP3	6	rs26705	C/T	1392198	3
SNP3	7	rs26701	G/C	1399767	2
SNP4	1	rs464311	A/G	1410824	0
SNP4	2	rs1867725	T/C	1412604	3
SNP4	3	rs153966	T/C	1414091	3
SNP4	4	new	C/T	1414804	1

Table 6A and 6B show previously known microsatellite markers and novel microsatellites in sequence. Forward and reverse primers are shown.

Table 6A Previously Known microsatellite markers in sequence

	Accession number	Forward primer	SEQ ID NO.	Reverse primer	SEQ ID NO.
D5S2107	GDB:614475	AGCCTTTGGGCCAACA	15	CAAAACCAACAGGAGTATGTACTTTT	16
D5S468	GDB:593646	AAATGAATGGTAGATTAACTGAG	17	TGGGAAAATAAATACATGCG	18
D5S2000	GDB:608769	TTATACCAGGAGAGTAGACTTTTT	19	CATGCTAATTTCAAATATGAGAG	20
D5S2091	GDB:613806	GCATTTGTCAATGTGCCA	21	GGTATTTCATTACAGCCAGTC	22
D5S2500	GDB:683034	TTAAAGGAGTGATCTCCCCC	23	GTTACAGTACCTATGGTCATGCC	24
D5S2080	GDB:613188	GCACTGTGAATTTCAAATG	25	GTCAGGGGACTGGGAT	26
D5S2018	GDB:609957	CCTGTAAACAATGAAAAACCCACTGA	27	AGACTATGCTGTGTGTGTGCCTG	28
D5S2071	GDB:612756	TCTGGGTTTACAACCTTCAAA	29	TAACTGGCTTGGCCCG	30

Table 6B Novel microsatellites in sequence:

	Forward primer	SEQ ID NO.	Reverse primer	SEQ ID NO.
DG5S382	CAGTAAATAGTTTGCTTCAGGCATT	31	CTCATACTCTGCGTGGCTTG	32
AC008829-5	AGGGCTAAGTGGATCACAGC	33	AGAGGGTCTTGCCACCTGTG	34
AC008833-2	TCTGCAAGACTCTCGGTGCT	35	IGCAGATCICATATTCATGTTT	36
AC008833-3	TCTGCCCTTTGTTCTCAIC	37	GTCAAAGGGAGTGATGGCAGT	38
AC022125-3	AAAATGACTGCTCTCCACAA	39	GGGAAATCATAGTACGCCCTCA	40
AC008833-6	AAACATAGCCACCTGTGTC	41	TCCAAAGCCCTTAGCTTAATCA	42
D17-C	GCTCCCTGGACTGTGGTAA	43	GCCACATTTGCTGCACATTT	44
D17-B	TTTTTCAGGGCTGGGTAGAA	45	TCCAAAGGAAGTGAAATCAGTG	46
D17-D	CTAACCCATCCTCACCCCAAT	47	TGTGGCATACAGGGAAGTGA	48
AC008804-1	GTGCTGGAAATTGGCTCCTA	49	CAACATCATTTTGCCTTGC	50
AC008804-2	TCCCAACGATAGCTGTGTC	51	GAATTAGGACGGTGGCTCAA	52
AC008804-3	TTTGCAATTCATCACTCATTCG	53	CCCGTAGCATCTGATCCAGT	54
D17-H	AGAAAGCTTCCCTCCACTG	55	CATTCCAGCCTGAGCTACAA	56
D17-G	TGGGCTCCAATATCCTTCC	57	TGCAGTTTGCACCTCTCCTTG	58
AC027322-12	TTATCTGTTCCTCCATGCTTTT	59	TGTTACATCTTGATCTATGACGTTT	60
AC027322-10	TGTATCCTGCATCCCTTGT	61	GGAAATAACCCAAAGTAATTGTAGTGA	62
AC027322-9	TCGTGCCAAGATGAAATGA	63	AAACCTCCCTGATCATCTGAA	64
AC027322-8	ACAGAGGAGCAAGGAATCA	65	TTGGCACGAATCACTCTCTG	66
AC027322-3	CCCCATTTGGATGATGGTAA	67	TGAGAACATCTAACGCTCTTTTCAA	68
AC027322-5	GGCACAGATAACTGGGAAGC	69	CCCCCAAAGTACTGCATAAA	70
DG5S397	ATGTTGGCAATTTGGTGAGGT	71	CACCTGTCCCTTTGGAGGTA	72
AC008879-2	TTTTAAACGTGAAAGTACAAAGTTGC	73	ACAAAGAGCACCTTTCCAGTG	74
AC008818-1	TGCTTGGTGAAAGGAATAGCC	75	GAGCCTGGGTCTCAGGAAT	76
AC008879-3	GGCAAGAACAGTTTGGAGGA	77	GACTGCTGTTTGTGTTGA	78
AC020733-1	AAATGGCTATAAAGTGCTTTGAAC	79	CGGTCTCAACAACCCAGAACA	80
AC016591-2	CAGAAACACACAGAGATCATTCAA	81	CAGACCCAATTAATGGCAAAA	82
DG5S405	TCTGTCTCTCTTGACCCCATGAAT	83	CAACACAGCGAGACCTCATC	84



*Discussion of Stroke Locus Identification*

Genealogy, a comprehensive population based list of broadly defined stroke patients and non-parametric allele sharing methods have been combined to successfully map a major gene for one of the most complex diseases known. There was no correlation between the contribution of the families to the locus and hypertension, diabetes or hyperlipidemias and this locus does not match any known gene contributing to these risk factors. The types of stroke studied in this work do not reflect a rare or Icelandic-specific form of stroke; rather, the diversity of the stroke phenotypes in Icelanders as well as risk factors are similar to those of most other Caucasian populations (Agnarsson, U., *et al.*, *Ann. Intern. Med.*, 130:987 (1999); Eliasson, J.H., *et al.*, *Læknablaðið*, 85:517-25 (1999); Sveinbjörnsdóttir, S., *et al.*, Systematic registration of patients with Stroke and TIA admitted to The National University Hospital, Reykjavik, Iceland, in 1997, XIII. Meeting of the Icelandic Association in Internal Medicine, Akureyri, Iceland (*Læknabladid*, 1998); Valdimarsson, E.M., *et al.*, *Læknabladid* 84:921 (1998)).

The known genetic factors contributing to common stroke may do so indirectly by increasing the risk of some of its risk factors such as diabetes, hyperlipidemias, and hypertension. It is possible that there are genetic factors for stroke that do not influence susceptibility to the known risk factors, as has been suggested by epidemiologic studies for myocardial infarction (Friedlander, Y., *et al.*, *Br. Heart J.*, 53:382 (1985); Shea, S., *et al.*, *J. Am. Coll. Cardiol.*, 4:793 (1984); Myers, R.H., *et al.*, *Am. Heart J.*, 120:963 (1990)). Epidemiological studies of the common forms of stroke have given conflicting results regarding the role of family history. Some studies have shown that parental history predicts the risk of stroke independently from conventional risk factors (Liao, D., *et al.*, *Stroke*, 28:1908 (1997); Jousilahti, P., *et al.*, *Stroke*, 28:1361 (1997)) whereas others have failed to find evidence for such independent factors (Graffagnino, C., *Stroke*, 25:1599 (1994); Kiely, D.K., *et al.*, *Stroke*, 24:1366 (1993); Lindenstrom, E., *et al.*, *Neuroepidemiology*, 12:37 (1993)).

The work described herein is the first reported genome scan searching for genes that contribute to stroke as defined as a public health problem. The data reported herein suggests that the mapped gene contributes directly to stroke without contributing indirectly through its known risk factors. This suggests that there may be other  
5 biological pathways contributing to the pathogenesis of stroke.

## EXAMPLE 2 IDENTIFICATION OF THE PDE4D GENE

### *Sequence of the Candidate Region*

We have sequenced approximately 3 Mb of the area defined by one drop in lod (Fig. 3, the genetic map of the region). The BAC (bacterial artificial clones) sequenced  
10 in house are shown in Table 7A. We also used for the assembly the following publicly available BAC sequences from GenBank listed in Table 7B for the assembly. The BAC clones we sequenced are from the RCPI-11 Human BAC library (Pieter deJong, Roswell Park). The vector used was pBACe3.6. The clones were picked into a 96 well microtiter plate containing LB/chloramphenicol (25 µg/ml)/glycerol (7.5%) and stored  
15 at -80°C after a single colony has been positively identified through sequencing. The clones can then be streaked out on a LB agar plate with the appropriate antibiotic, chloramphenicol (25 µg/ml)/sucrose (5%).

Table 7A

**Sequenced at Decode**

<b>(BAC name)</b>	<b>Comment</b>	<b>Accession number</b>
RP11-621C19	1	AC020733
RP11-113C1	2	
RP11-412M9	2	
RP11-151G2	2	
RP11-151F7	2	
RP11-281M3	2	
RP11-421L6	2	
RP11-68E13	2	
RP11-379P8	2	
RP11-1A7	1	AC008111
RP11-422K3	2	
RP11-116A3	2	

Key to "Comment" column:

1= This BAC has a publicly available sequence,

it was sequenced at Decode to make sure the sequence was correct

2= Only BAC end-sequence available for this BAC publicly.

Table 7B

**Sequences available from**

<b>GenBank (BAC name)</b>	<b>Accession number</b>	<b>Status of sequence</b>
RP11-621C19	AC020733	17 unordered pieces
CTD-2003D5	AC016591	complete sequence
CTD-2210C1	AC008879	7 unordered pieces
CTD-2124H11	AC008818	complete sequence
CTD-2301A11	AC008934	complete sequence
RP11-16B11	AC011929	7 unordered pieces
CTC-261E10	AC026693	complete sequence
CTD-2027G10	AC027322	complete sequence
RP11-1A7	AC008111	8 unordered pieces
CTD-2122K7	AC012315	complete sequence
CTD-2085F10	AC008804	complete sequence
CTD-2040J22	AC008791	complete sequence
RP11-235N16	AC020975	16 ordered pieces
CTD-2146O16	AC008833	complete sequence
CTD-2084I4	AC022125	17 ordered pieces
CTD-2140K22	AC008829	26 ordered pieces
CTD-2124D11	AC020924	7 ordered pieces
RP11-731H6	AC026095	21 unordered pieces

*Gene identification*

The gene, human cAMP specific phosphodiesterase 4D (HPDE4D) was identified in the sequenced region (Fig. 3). Twenty-three exons have been identified,

eighteen of those have previously been published. See top of Fig. 4. Five new spliced exons have been identified (referred to as 4D6, 4D7-1, 4D7-2, 4D7-3 and 4D8) in three new isoforms (PDE4D6, PDE4D7 and PDE4D8). The genomic sequence is approximately 1,691,140 bases in length.

The exon locations are indicated in Table 8 below.

Table 8

Exon	Start	End
(New) 4D7-1	142207	142328
(New) 4D7-2	444645	444775
(New) 4D7-3	641649	641878
4D4	736254	737226
4D5	861791	862202
4D3	1044051	1044190
(New) 4D6	1273404	1273709
(New) 4D8	1354347	1355128
LF1	1414511	1414702
LF2	1436943	1436979
LF3	1472965	1473235
LF4	1449835	1449542
N3	1539259	1539302
4D1/D2	1591172	1591425
ex3	1636944	1637037
ex4	1638406	1638578
ex5	1639508	1639606
ex6	1640491	1640655
ex7	1641818	1641917
ex8	1653070	1653224
ex9	1653943	1654065
ex10	1654576	1654758
ex11	1655335	1655747

The markers showing the highest association are located within the PDE4D (Table 1, Fig. 3 and Table 5), as follows:

AC022125-3, 21 000 bp upstream of the LF1 exon  
D5S2000, 37 000 bp downstream of PDE4D6 exon  
D5S2091, 30 000 bp downstream of PDE4D6 exon  
D17-C, 21 000 bp upstream of PDE4D6 exon  
D17-B, 31 000 bp upstream of PDE4D6 exon  
AC008833-6, 35 000 bp downstream of PDE4D8 exon  
AC008818-1, 3000 pb upstream of PDE4D7-1 exon  
AC008829-5, 89 000 bp upstream of PDE4D1/D2 exon  
Haplotype (1) and (2) are located upstream of and stretch over the PDE4D6 exon  
Haplotype (3) is located upstream of and stretches over the LF2-LF4 exons  
Haplotype (4) stretches over PDE4D6 and PDE4D8 exons  
Haplotype (5) stretches over PDE4D7-1 to PDE4D7-3 exons  
Haplotype (6) stretches over PDE4D7-1 exon  
Haplotype (7) stretches over LF2-exons 11

A contig for the incomplete genomic sequence of the PDE4D gene was submitted in November 2000 (GenBank entry NT\_023193 by International Human Genome Project collaborators). The size of the contig is 614 481 bp (including gaps) whereas our genomic sequence for the whole PDE4D region (i.e., from the first exon for PDE4D variant) is close to 1,700,000 bp. The contig NT\_023193 comprises only 11 exons of the PDE4D gene (in Fig. 4, exons 4D1/D2 - 11) and the 5' differently spliced exons are missing in the contig (in Fig. 4, exons 4D4, 4D5, 4D3, 4D6, 4D8, 4D7-1, 4D7-2, 4D7-3, LF1, LF2, LF3 and LF4).

*SNPs (single nucleotide polymorphisms) detected in the sequence and mutation analysis*

Publically available and novel SNP's in the PDE4D2 gene from mutation screening of all exons are illustrated in Tables 9 and 10.

### *Gene Identification*

The identified gene PDE4D is a member of the cyclic nucleotide phosphodiesterases (PDEs). Intracellular levels of cyclic AMP and cyclic GMP are mediated by the PDEs. Cyclic nucleotides are important second messengers that regulate and mediate a number of cellular responses to extracellular signals, such as hormones, light and neurotransmitters. Intracellular levels of cAMP play a key role in the function of inflammatory and immune cells. One of the mechanisms that mediate relaxation of vascular muscle in cerebral circulation is the production of cAMP.

### *PDE4D Structure and Splice Forms*

Phosphodiesterases are the mammalian homolog of the "dunce" gene in *Drosophila melanogaster*, implicated in learning and memory (Davis, R.L. and B. Dauwalder, *Trends Genet.*, 7(7):224-229 (1991)). PDEs are members of a large superfamily of isoenzymes subdivided into 9 and possibly 10 distinct families (Conti, M. and S.L. Jin, *Prog. Nucleic Acid Res. Mol. Biol.*, 63:1-38 (1999)), with several genes in each family and more than one isoform for each gene. The significance of the diversity of PDEs is not known but many of the isoforms differ in their biochemical properties, phosphorylation, intracellular targeting, protein-protein interactions and patterns of expression in tissues, which suggests that each of the various isoforms might have distinct functions (Bolger, G.B., *Cell Signal*, 6(8):851-859 (1994); Conti, M., *et al.*, *Endocr. Rev.*, 16(3):370-378 (1995)).

There are four genes that encode the type 5 PDEs (PDE4A, PDE4B, PDE4C and PDE4D), which is a group of enzymes characterized by high affinity for cAMP. The gene for PDE4D was assigned to human chromosome 5q12 (Milatovich, A., *et al.*, *Somat. Cell Mol. Genet.*, 20(2):75-86 (1994); Szpirer, C., *et al.*, *Cytogenet. Cell Genet.*, 69(1-2):22-14 (1995)) and 5 distinct splice variants have been characterized (the short forms PDE4D1, PDE4D2 and the long forms PDE4D3, PDE4D4, and PDE4D5) (Bolger, G.B., *et al.*, *Biochem. J.*, 328(Pt.2):539-548 (1997)) (Fig. 4). The sequence of



the human PDE4D variants show a high degree of homology to the PDE4Ds expressed in mouse and rat. The pattern of splicing and different promoter usage is highly conserved during evolution indicating an important physiological role (Nemoy, G., et al., *FEBS Lett.*, 384(1):97-102 (1996)). The PDE4D variants are generated at two major boundaries present in the gene. The first boundary corresponds to the junction of exon 2. Differential splicing in this region generates the 2 short variants PDE4D1 (586 a.a.) and PDE4D2 (508 a.a.) (Fig. 4). This splicing boundary is conserved in mouse, rat and between different human PDE4 genes. The splicing variant PDE4D2 is generated by the removal of 256 bp from the PDE4D1 sequence. The initiation codon in the PDE4D2 variant lies within exon D1/D2. Data demonstrates that the expression of the short PDE4D variants is under the control of an internal promoter regulated by cAMP (Vicini, E. and M. Conti, *Mol. Endocrinol.*, 11(7):839-850 (1997)). The second major splicing boundary is also conserved during evolution and is identical to that described in the *Drosophila dunce* gene. Splicing occurs at the intron/exon boundary at the LF1 exon (Fig. 4).

#### *PDE function*

The PDEs serve at least four major functions in the cell. They can (1) act as effector of signal transduction by interacting with receptors and G-proteins; (2) integrate the cyclic nucleotide-dependent pathway with other signal transduction pathways; (3) function as homeostatic regulators, playing a role in feedback mechanisms controlling cyclic nucleotide levels during hormone and neurotransmitter stimulation; (4) play an important role in controlling the diffusion of cyclic nucleotides and in creating subcellular domains or channeling cyclic nucleotide signaling (Conti, M. and S.L. Jin, *Prog. Nucleic Acid Res. Mol Biol.*, 63:1-38.(1999)). Inhibition of PDE has long been recognized as an effective pharmacological strategy to alter intracellular cyclic nucleotide levels (Flamm, E.S., et al., *Arch. Neurol.*, 32(8):569-71 (1975)).

It has been reported that PDE4 is the predominant isozyme regulating vascular tone mediated by cAMP hydrolysis in cerebral vessels (Willette, R.N., *et al.*, *J. Cereb. Blood Flow Metab.*, 17(2):210-9 (1997)).

A recent study on mice with targeted disruption of PDE4D gene (Hansen, G., *et al.*, *Proc. Natl. Acad. Sci. U S A*, 97(12):6751-6 (2000)) has demonstrated a crucial role of PDE4D in the control of smooth muscle contraction and muscarinic cholinergic receptor signaling but not in the control of airway inflammation. The lung phenotype of the PDE4D<sup>-/-</sup> mice demonstrates that this gene plays a nonredundant role in cAMP homeostasis. There is a significant reduction in PDE activity and an increase in resting and stimulated cAMP levels in the lung, indicating that other PDE4s (or other PDEs) are not up-regulated and cannot compensate for the loss of PDE4D. These findings support that PDE4D serves a unique, nonoverlapping functions in cell signalling.

No clear link between an established inherited disorder and known PDE loci has emerged, with the exception of PDE6. Inhibitors of PDEs have been shown to affect airway responsiveness and pulmonary allergic inflammation (Schudt, C., *et al.*, *Pulm. Pharmacol. Ther.*, 12(2):123-9 (1999)). There are reports suggesting that altered PDE4 function may be linked to nephrogenic diabetes insipidus (Takeda, S., *et al.*, *Endocrinology*, 129(1):287-94 (1991)) or atopic dermatitis (Chan, S.C., *et al.*, *J. Allergy Clin. Immunol.*, 91(6):1179-88 (1993)), however no mutations have been identified. It has also been reported that that vasorelaxation modulated by PDE4 (not mentioned whether it is A, B, C or D gene family) is compromised in chronic cerebral vasospasm associated with subarachnoid hemorrhage (Willette, R.N., *et al.*, *J. Cereb. Blood Flow Metab.*, 17(2):210-9 (1997)). PDE4D itself has not been linked to stroke before.

#### *PDE4D expression and cellular localization*

PDE4Ds are expressed in human peripheral mononuclear cells (Nemoz, G., *et al.*, *FEBS Lett*, 384(1):97-102 (1996)), brain (Bolger, G., *et al.*, *Mol. Cell Biol.*, 13(10):6558-71 (1993)), heart (Kostic, M.M., *et al.*, *J. Mol. Cell Cardiol.*,

29(11):3135-46 (1997)) and vascular smooth muscle cells (Liu, H. and D.H. Maurice, *J. Biol. Chem.*, 274(15):10557-65 (1999)).

Immunoblotting of rat brain has shown that the PDE4D3, PDE4D4 and PDE4D5 proteins are present in brain (Bolger, G.B., *et al.*, *Biochem. J.*, 328(Pt 2):539-48 (1997)) and are expressed in cortex and cerebellum from rat (Iona, S., *et al.*, *Mol. Pharmacol.*, 53(1):23-32 (1998)). These proteins were recovered mostly or exclusively in the particulate fraction suggesting that these forms may be targeted to insoluble cellular structures. In addition a 68 kDa protein was detected which could represent PDE4D1, PDE4D2 or both. To verify this RT-PCR was performed on mRNA from rat brain and the results showed that transcripts for PDE4D1 and 2 were present. Their data also suggests that the N-terminal regions of the PDE4D3-5, derived from alternatively spliced regions of their mRNAs, are important in determining their subcellular localization activity and differential sensitivity to inhibitors and there are indications that there is a propensity for the long PDE4D isoforms to interact with particulate fraction of the cell.

#### *Newly identified isoforms*

Five new exons have been identified. Exon D6 was identified by deCODE (in silico) and verified by RT-PCR. The four other new exons have been identified using CAP-RACE amplification from cultured cells with an "long-form 1"-specific reverse primer. Three of these exons are spliced to one another and together onto LF1 and this new isoform was given the name D7. The fourth new 5' exon was spliced by itself onto LF1 and given the name D8. These constitute two previously unknown isoforms.

In terms of genomic structure, the D7 exons extend the known 5' end of PDE4D over 590,000 bp and the D8 exon lies between two previously recognized exons. The D7 isoform has an open reading frame extending into LF1, resulting in an additional 90 amino acids at the N-terminus of the predicted protein. The D8 5' exon contains a long 5' UTR, followed by an ATG near the end of the exon that extends an ORF into LF1 and results in a novel 21 N-terminal amino acids in the predicted protein.

Table 11: New Isoforms

Isoform					
Name					Cell line
	Exon		Size		
PDE4D6	D6				
PDE4D7	D7-1	5'	122 bp	SKNAS	
PDE4D7	D7-2	Internal	131bp	SKNAS	
PDE4D7	D7-3	Internal	230 bp	SKNAS	
PDE4D8	D8	5'	782 bp	HeLa	

The sequences are as follows:

D7-1:

ATAGTTGGCGTACCCTGAGGCCTGCCAGTTCCTGCCTTAATGCATATGTAGT  
CGTAATTGAGTTCTGACACGGCCTTGGATGTTTCTGTCCTAAATAGCTGACA  
TTGCATCTTCAAGACTGT

D7-2:

CATTCCAGTTGGCTTTTGAGTGGATACGTGCAGTGAGATCATTGACACTGGA  
AACACTAGTTCCCATTTTAATTACTTAAAACACCACGATGAAAAGAAATACC  
TGTGATTTGCTTTCTCGGAGCAAAAAGT

D7-3:

GCCTCTGAGGAAACACTACATTCCAGTAATGAAGAGGAAGACCCTTTCCGC  
GGAATGGAACCCTATCTTGTCCGAGACTTTCATGTCGCAATATTCAGCTTC  
CCCCTCTCGCCTTCAGACAGTTGGAACAAGCTGACTTGAAAAGTGAATCAGA  
GAACATTCAACGACCAACCAGCCTCCCCCTGAAGATTCTGCCGCTGATTGCT  
ATCACTTCTGCAGAATCCAGTGG (SEQ. ID NO.: 11; includes D7-1, D7-2 and D7-3)

New predicted amino-terminal protein sequence from above (PDE4D7):

MKRNTCDLLSRKSSASEETLHSSNEEDPFRGMEPYLVRRLLSCRNIQLPPLAFRQ  
LEQADLKSESENIQRPTSLPLKILPLIAITSAESS (90 amino acids) (SEQ ID NO.:12)

D8:

TTCTCACTGCCCTGCGGTGTTTTGAACTGCCTTCTTACAGACGTCATACAGCC  
CTTGAGGAATAGTTTCTGCCTGGTGAGATTGAATGATAGTTCTCATTACAA  
AACCCTGGATTCTAAGCAGGGACACACAGAAATTACTTTCGCAGGTAAATC  
AGCCCACCCAGCCAAAGTGTGGAGAGATTTGTTTCCTTGGCTGACTTCTTTGC  
TCCACGGAGAGGAGTGTTTTCTGTGCTTGCCCTGAAATGGAACCTCCTTGA  
CAGCTCTCCCGTGTTACAGTACCTCCCGGTCATTTTCTTTTTCTCTCTCTAC  
CTGCGCTCTTCGAGTGTGAGAAACCTTTAAAGCTGTTACTATGGAATTGCAA  
AAAAGAGATCAAGTGACTCTTTCAGTATGCTGGTTTCCCTTGTGACCCAGAT  
GAAGAATCAATTCAGAATTCAGTTCCTCCCTTGGCATTGCAAGACACAGAAG  
AAACTGTCACTTCCTAACAGCCTAGTACTGGAGTAAATTCAGTATGAAGGAA  
GAAAGCGCTCCTGCGTGTTAGAACCTTGCCCATGAGCTGGACCGAGGACAG  
GAGATGGACTCCAGGAAAATTGGATTTCTTCAAGCAGCCTCCCTTGGAATG  
GAATATCTTTAAAATCTTCTTTGCAGAAAGACAGTTAGAATGTATTAATCAG  
AATAGTTGAAGACTTATTTTCCTTTTTATTTTTTTTCAAAATGAGCATTATTAT  
GAAGCCAAGATCCCGATCTACAAGTTCCTAAGGACTGCAGAGGCAGTTTG  
(SEQ ID NO.:13)

New predicted amino-terminal protein sequence from above (PDE4D8):

MSIIMKPRSRSTSSLRTAEAV (21 amino acids) (SEQ ID NO.: 14).

*Expression analysis*

The tissues below were examined by RT-PCR, cloning and sequencing. The presence (Pos.) or absence (-) of the isoforms transcripts is shown in tables below.

Table 12A Original Cell Lines (SKNAS and HeLa)

	D7	D8
HeLa	-	Pos.
SKNAs	Pos.	Pos.

Table 12B Human tissue DNA panels

cDNA panels	D7	D8
Spleen	-	Pos.
Lymph node	Pos.	Pos.
Thymus	Pos.	Pos.
Tonsil	Pos.	Pos.
Leukocytes	Pos.	Pos.
Bone marrow	Pos.	Pos.
Heart	-	Pos.
Brain	-	Pos.
Placenta	Pos.	Pos.
Lung	Pos.	Pos.
Liver	-	Pos.
Skel. muscle	-	Pos.
Kidney	Pos.	Pos.
Pancreas	-	Pos.

Table 12C Human blood cell fractions

	D7	D8
Spleen	Pos.	Pos.
Lymph node	Pos.	Pos.
Thymus	Pos.	Pos.
Tonsil	Pos.	Pos.
Leukocytes	Pos.	-
Bone marrow	Pos.	Pos.
Fetal liver	Pos.	Pos.
Mononucl. cells resting	Pos.	Pos.
CD4Pos. resting	-	Pos.
CD8Pos. resting	-	-
CD14Pos. resting	Pos.	Pos.
CD19Pos. resting	Pos.	Pos.
Mononucl. cells activated	-	-
CD4Pos. activated	-	-
CD8Pos. activated	-	-
CD19Pos. activated	-	Pos.



Table 12D Cultured in-house endothelial and smooth muscle cells from patients

Cell type	D1	D2	D3	D5	D6	D7	D8
<b>Normal</b> aorta smooth musc.	Pos.	Pos.	Pos.	Pos.	Pos.	-	-
Diseased aorta smooth musc.	Pos.	Pos.	-	Pos.	Pos.	-	Pos.
Diseased aorta smooth musc.	Pos.	Pos.	-	Pos.	Pos.	-	-
Diseased femoral smooth musc.	Pos.	Pos.	-	Pos.	Pos.	-	Pos.
<b>Normal</b> aortic endothelial cells	Pos.	Pos.	Pos.	Pos.	Pos.	Pos.	Pos.
Diseased aortic endothelial cells	Pos.	Pos.	-	Pos.	Pos.	-	-
Diseased femoral endothelial cells	Pos.	Pos.	-	Pos.	Pos.	-/?	-/?

Isoform specific primers were designed in order to better determine the expression of different PDE4D isoforms using RT-PCR on Epstein Barr Virus (EBV) transformed B cell lines from stroke patients and controls. The results are outlined in Tables 13A and 13B below. There is a significant difference between the expression of D3 and D7 in patients compared to controls.

Table 13A RT-PCR on EBV transformed B stroke patient cells

Patient	PDE4D*	D3	D4	D5	D6	D7	D8
Cells							
P-1	Pos.	Pos.	-	Pos.	-	Pos.	Pos.
P-2	Pos.	Pos.	-	Pos.	-	Pos.	-
P-3	Pos.	-	-	Pos.	-	-	-
P-4	Pos.	Pos.	-	Pos.	-	Pos.	-
P-5	Pos.	Pos.	Pos.	Pos.	-	Pos.	-
P-6	Pos.	-	Pos.	Pos.	-	Pos.	-
P-7	Pos.	Pos.	-	Pos.	-	Pos.	-
P-8	Pos.	-	-	-	-	Pos.	-
P-9	Pos.	-	-	Pos.	-	Pos.	-
P-10	Pos.	-	-	Pos.	Pos.	Pos.	-
P-11	Pos.	-	-	Pos.	-	Pos.	-
P-12	Pos.	-	-	Pos.	-	Pos.	-
P-13	Pos.	-	-	Pos.	-	Pos.	-
P-14	Pos.	-	-	Pos.	-	Pos.	-
% expr.	100	35,7	14,3	92,8	7,1	92,8	7,1

\*Primers designed for the common region of PDE4D identical for all isoforms

Table 13B RT-PCR on EBV transformed B control cells

Control	PDE4D	D3	D4	D5	D6	D7	D8
Cells	*						
C-1	Pos.	-	-	Pos.	-	-	Pos.
C-2	Pos.	-	-	Pos.	-	-	-
C-3	Pos.	-	-	Pos.	-	-	-
C-4	Pos.	-	-	Pos.	-	-	-
C-5	Pos.	-	-	-	-	Pos.	-
C-6	Pos.	-	-	-	-	-	-
C-7	-	-	-	Pos.	-	-	Pos.
C-8	Pos.	-	-	-	-	Pos.	-
C-8	Pos.	Pos.	-	Pos.	-	Pos.	-
C-9	Pos.	-	-	-	-	Pos.	-
C-10	Pos.	-	-	Pos.	-	Pos.	-
C-11	Pos.	-	-	Pos.	-	Pos.	-
C-12	Pos.	-	-	Pos.	-	-	-
% expr.	92,3	7,7 <sup>a</sup>	0	69,2	0	46,2 <sup>b</sup>	15,4

<sup>a</sup> p < 0.09 using Fisher's Exact Test.<sup>b</sup> p = 0.01 using Fisher's Exact Test

\*Primers designed for the common region of PDE4D identical for all isoforms

Table 9

Publically Available SNPS; SNP ID No. from NCBI Database

rs286155	rs40512	rs251726	rs2042315	rs1544791	rs1355099
rs286156	rs35386	rs1862589	rs918590	rs851284	rs1396473
rs2061250	rs35387	rs702556	rs918591	rs1396476	rs1369285
rs286150	rs27221	rs702554	rs918592	rs1508860	rs1435071
rs206789	rs27653	rs441391	rs1115372	rs1974850	rs1435070
rs1823062	rs26955	rs446883	rs1345782	rs2136203	rs1435083
rs1823063	rs26956	rs789615	rs1363862	rs2174994	rs991551
rs1445852	rs153031	rs401207	rs1423248	rs1508863	rs1154790
rs766119	rs185190	rs364917	rs1423246	rs1508859	rs1154789
rs956721	rs37762	rs404202	rs1862614	rs1508864	rs714291
rs248910	rs37761	rs440607	rs2194256	rs1396474	rs981760
rs248912	rs1423471	rs411255	rs889305	rs1543951	rs1369288
rs187481	rs27224	rs615429	rs2113071	rs2016324	rs977418
rs153152	rs1645013	rs789396	rs2113072	rs1995780	rs977417
rs27960	rs1423472	rs37684	rs966220	rs1508865	rs977416
rs27564	rs27220	rs1445893	rs966221	rs952110	rs1529843
rs27565	rs1423473	rs37685	rs719702	rs1533019	rs1529842
rs26948	rs149079	rs1086121	rs2113073	rs2117552	rs1435077
rs40131	rs149324	rs42222	rs2113074	rs1545069	rs1369287
rs26949	rs153067	rs37707	rs2113075	rs1545070	rs1017410
rs26950	rs40354	rs37708	rs1035512	rs973700	rs1017409
rs26954	rs26951	rs37709	rs1559277	rs1583434	rs1435076
rs26953	rs153029	rs789389	rs1981848	rs1347401	rs1435075
rs152324	rs27223	rs1423247	rs1544788	rs1949017	rs1435074
rs35385	rs27222	rs874768	rs1544790	rs723962	rs978455

rs1827340	rs159621	rs1504982	rs298084	rs298027	rs295972
rs1393083	rs159625	rs877745	rs298083	rs298028	rs295971
rs988364	rs1435072	rs877744	rs298073	rs298029	rs295970
rs1017408	rs173945	rs2164661	rs298072	rs298030	rs295969
rs2053155	rs256356	rs981230	rs298071	rs169868	rs295968
rs181923	rs185351	rs1437124	rs1421400	rs177077	rs295966
rs1546364	rs256355	rs746477	rs402874	rs298032	rs726652
rs173942	rs2067024	rs893191	rs434368	rs298033	rs295965
rs159616	rs256354	rs1992112	rs371011	rs298034	rs1307218
rs159620	rs173944	rs298102	rs298063	rs298035	rs1307217
rs1501641	rs256353	rs298101	rs298062	rs298042	rs893190
rs159619	rs986400	rs2164660	rs298061	rs298044	rs1111495
rs159614	rs1504981	rs298100	rs298060	rs298045	rs295961
rs159613	rs1120533	rs298098	rs298057	rs298046	rs295960
rs159612	rs256351	rs298096	rs298056	rs298048	rs295959
rs159611	rs190458	rs298095	rs1370230	rs298049	rs295958
rs194368	rs256352	rs298094	rs297975	rs298050	rs296410
rs661576	rs171745	rs298093	rs297974	rs298051	rs295957
rs299627	rs1157709	rs1362942	rs379578	rs298052	rs295956
rs159608	rs1910790	rs1362941	rs920190	rs298053	rs295955
rs159609	rs1910789	rs298091	rs1865962	rs190936	rs295954
rs159624	rs1504985	rs298090	rs298018	rs298017	rs295949
rs1159470	rs1008709	rs298089	rs298021	rs298016	rs295980
rs159622	rs1027747	rs298088	rs298022	rs298015	rs295979
rs256349	rs869685	rs298087	rs298023	rs298014	rs295978
rs256348	rs869686	rs1421401	rs298024	rs2053229	rs1154587
rs1501640	rs924880	rs298086	rs298025	rs295974	rs296406
rs600611	rs1504983	rs298085	rs298026	rs295973	rs296405

rs295948	rs294478	rs37575	rs1457111	rs171800	rs403695
rs295947	rs953302	rs37576	rs1824154	rs187716	rs403672
rs295946	rs294479	rs1876209	rs2112911	rs258110	rs372309
rs295945	rs697075	rs190486	rs1551564	rs258109	rs424839
rs295944	rs294481	rs447261	rs2034895	rs258108	rs370891
rs1395334	rs294482	rs1506558	rs2081092	rs258107	rs434183
rs295943	rs294483	rs1108916	rs2112910	rs665836	rs444552
rs1035321	rs702545	rs921942	rs918583	rs392901	rs433565
rs294494	rs294484	rs924998	rs1840838	rs383444	rs1445918
rs722923	rs294485	rs176705	rs1350298	rs662643	rs441817
rs294495	rs294486	rs1156029	rs1990985	rs670169	rs433161
rs294496	rs702544	rs1156028	rs1379297	rs525099	rs428059
rs294497	rs702543	rs931857	rs1817248	rs669240	rs434422
rs294498	rs159194	rs931856	rs244569	rs381755	rs427433
rs294499	rs40215	rs931855	rs244568	rs454702	rs391377
rs294500	rs291118	rs1506557	rs244567	rs443191	rs414746
rs294501	rs1506560	rs462930	rs244565	rs380118	rs187368
rs294503	rs37569	rs458953	rs185417	rs2168649	rs244593
rs295936	rs291119	rs174039	rs258128	rs371775	rs244592
rs1395336	rs37571	rs2174624	rs258127	rs378970	rs244591
rs1395337	rs1870077	rs2135480	rs258125	rs401013	rs244590
rs294492	rs159195	rs992726	rs1348710	rs427748	rs181736
rs159196	rs37572	rs294474	rs1348709	rs427740	rs193447
rs159197	rs37573	rs294475	rs1971061	rs378869	rs2028842
rs172362	rs167161	rs988827	rs1541673	rs1902609	rs2028841
rs37579	rs37574	rs988828	rs1541672	rs389324	rs1823068
rs721784	rs1506562	rs1350297	rs258112	rs387647	rs1823067
rs697076	rs291122	rs1457110	rs258111	rs377451	rs1823066

rs244588	rs35275	rs2014012	rs531105	rs27691	rs464311
rs168641	rs40125	rs37353	rs27184	rs35310	rs149108
rs2059175	rs35274	rs187645	rs1445951	rs26689	rs153980
rs2059174	rs244577	rs1809012	rs1947090	rs27187	rs153961
rs1118965	rs35267	rs187644	rs26708	rs1445948	rs1867725
rs154028	rs35266	rs153981	rs2112959	rs26687	rs153965
rs151802	rs39672	rs255652	rs1445953	rs166260	rs153966
rs244580	rs958851	rs255650	rs26709	rs149506	rs1988803
rs1457145	rs244576	rs255649	rs26710	rs27722	rs467300
rs244579	rs244575	rs2194210	rs28055	rs26695	rs1664886
rs255812	rs244573	rs255648	rs26711	rs27773	rs1867724
rs154029	rs35258	rs255647	rs27723	rs1471429	rs1445947
rs185333	rs35259	rs154221	rs27185	rs1471430	rs42470
rs35289	rs40121	rs256752	rs27695	rs26705	rs1423308
rs35288	rs35261	rs256120	rs1445954	rs28054	rs27174
rs35287	rs35264	rs255635	rs27549	rs26703	rs168834
rs35286	rs40122	rs185325	rs455969	rs27898	rs27727
rs35285	rs35265	rs26686	rs26712	rs722010	rs27172
rs35284	rs35255	rs1031197	rs1867711	rs27957	rs676449
rs35283	rs721826	rs1031198	rs1867712	rs26702	rs27186
rs35282	rs244570	rs27183	rs26713	rs27548	rs2112957
rs35281	rs27171	rs28044	rs26714	rs26701	rs1023814
rs35280	rs1824159	rs27182	rs27547	rs27188	rs27175
rs35279	rs27170	rs545611	rs26715	rs27189	rs1445950
rs35278	rs27169	rs649476	rs27949	rs149084	rs2021384
rs40126	rs27168	rs1664896	rs26700	rs153968	rs736736
rs35277	rs2013979	rs149106	rs1306348	rs464787	rs745813
rs35276	rs889231	rs1374028	rs35309	rs153978	rs889229

rs1077978	rs1353749	rs2055295
rs2081106	rs1391651	rs1391648
rs1559252	rs1391650	rs2055298
rs2054443	rs1391649	rs1472456
rs922437	rs1391652	rs1553114
rs922436	rs950446	rs1542842
rs922435	rs950447	rs1498611
rs922434	rs1498599	rs1532520
rs716908	rs1498601	
rs1971940	rs1498609	
rs1559251	rs1498608	
rs1345791	rs1553113	
rs1345792	rs1353748	
rs1345793	rs1498606	
rs1105577	rs1353747	
rs1960	rs1006431	
rs1824788	rs1948651	
rs1862563	rs1498605	
rs1551939	rs1498604	
rs1038080	rs1498603	
rs997421	rs1995166	
rs1014317	rs1498602	
rs2059191	rs1077183	
rs1551938	rs1078368	
rs1186170	rs1874857	
rs986067	rs1874858	
rs954740	rs1909294	
rs1363882	rs1546221	



Table 10  
New SNP's identified by deCODE

Position in patent	Variation	AA Change	Exon		
				1268007	A/G
732790	G/T			1268187	C/T
735966	C/A			1268553	A/G
736226	A/G			1272669	G/A
736516	C/T			1272910	A/G
850001	G/A			1273023	G/A
852776	A/C			1273220	A/G
853079	G/T			1273240	A/G
853575	C/A			1273543	C/T
856468	A/G			1288439	G/A
860845	A/G			1289730	T/A
870924	A/G			1290176	G/A
1027267	T/C			1293745	T/C
1027643	T/G			1344605	A/G
1027757	T/C			1344864	G/A
1028146	T/A			1345135	C/G
1037657	A/C			1345286	A/G
1044016	G/A			1346112	C/T
1044045	C/T			1352976	A/T
1254737	T/C			1354291	T/C
1254849	T/C			1354377	C/T
1255763	G/T			1354554	C/A
1257206	A/G			1354675	T/C
1258161	T/C			1355114	T/C

1355693	A/G	1575634	A/T		
1357081	A/G	1580088	G/A		
1362985	T/G	1581078	G/A		
1363021	C/T	1582418	T/A		
1363827	C/T	1584580	A/C		
1363911	G/A	1585955	G/T		
1364061	C/T	1590608	T/C		
1364066	T/A	1590672	A/G		
1367904	A/G	1590673	G/T		
1368193	T/C	1590837	G/A		
1368217	G/C	1590936	C/A		
1373349	C/T	1591011	G/A		
1373384	A/G	1591047	C/T		
1373415	T/C	1591306	C/A	Pro->Thr	D1
1373979	T/G	1591583	T/C		
1376149	G/A	1594788	C/A		
1384931	A/C	1594994	G/A		
1385093	A/T	1601831	C/T		
1385107	G/A	1636902	T/C		
1385445	T/C	1638550	A/C	Lys->Thr	exon 4
1391418	G/C	1640663	T/C		
1409210	C/A	1641954	C/T		
1414804	C/T	1641960	C/T		
1428284	T/C	1653881	G/A		
1431800	A/T	1655748	G/A		
1449904	A/T				
1574301	C/G				
1574615	C/T				

While this invention has been particularly shown and described with reference to preferred embodiments thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention as defined by the appended claims.

## CLAIMS

What is claimed is:

1. An isolated nucleic acid molecule comprising a phosphodiesterase 4D gene, or a fragment or variant thereof.
- 5 2. The isolated nucleic acid molecule of Claim 1, wherein the phosphodiesterase 4D gene has the nucleotide sequence of SEQ ID NO:1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof.
3. A nucleic acid encoding a polypeptide having an amino acid sequence selected  
10 from the group consisting of SEQ ID NOs: 2-10, 12 or 14.
4. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof, and the complement thereof.
- 15 5. An isolated nucleic acid molecule which hybridizes under high stringency conditions to a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof, and the complement thereof.

6. An isolated nucleic acid molecule which hybridizes under high stringency conditions to a nucleotide sequence encoding an amino acid sequence selected from the group consisting of: SEQ ID NOs: 2-10, 12 or 14.
7. A method for assaying the presence of a first nucleic acid molecule in a sample, comprising contacting said sample with a second nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof, and the complement thereof, under high stringency conditions.
8. A vector comprising an isolated nucleic acid molecule selected from the group consisting of: SEQ ID NO: 1, the complement of SEQ ID NO: 1 SEQ ID NOs: 2-10, 12 or 14, operatively linked to a regulatory sequence; wherein the nucleic acid molecule may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof.
9. A recombinant host cell comprising the vector of Claim 8.
10. A method for producing a polypeptide encoded by an isolated nucleic acid molecule, comprising culturing the recombinant host cell of Claim 9 under conditions suitable for expression of said nucleic acid molecule.
11. An isolated polypeptide encoded by a phosphodiesterase 4D gene, or a fragment or variant of said polypeptide.
12. The isolated polypeptide of Claim 11, wherein the phosphodiesterase 4D gene has the sequence of SEQ ID NO: 1 which may optionally comprise at least one

polymorphism as shown in Table 9, 10 or combination thereof, or the complement thereof.

13. The isolated polypeptide of Claim 11, wherein the polypeptide has an amino acid sequence selected from the group consisting of SEQ ID NOs: 2-10, 12 or 14.
14. An isolated polypeptide comprising an amino acid sequence which is greater than about 90 percent identical to an amino acid sequence selected from the group consisting of SEQ ID NOs: 2-10, 12 or 14.
15. A fusion protein comprising an isolated polypeptide of Claim 11.
16. An antibody, or an antigen-binding fragment thereof, which selectively binds to a polypeptide of Claim 11.
17. An antibody, or an antigen-binding fragment thereof, which selectively binds to an amino acid sequence selected from the group consisting of SEQ ID NOs: 2-10, 12 or 14, or to a fragment or variant of said amino acid sequence.
18. A method for assaying the presence of a polypeptide encoded by an isolated nucleic acid molecule according to Claim 1 in a sample, comprising contacting said sample with an antibody which specifically binds to the encoded polypeptide.
19. A method of diagnosing a susceptibility to stroke in an individual, comprising detecting a polymorphism in phosphodiesterase 4D gene, wherein the presence of the polymorphism in the gene is indicative of a susceptibility to stroke.

20. A method of diagnosing a susceptibility to stroke, comprising detecting an alteration in the expression or composition of a polypeptide encoded by phosphodiesterase 4D gene in a test sample, in comparison with the expression or composition of a polypeptide encoded by phosphodiesterase 4D gene in a control sample, wherein the presence of an alteration in expression or composition of the polypeptide in the test sample is indicative of a susceptibility to stroke.
21. The method of Claim 20, wherein the alteration in the expression or composition of a polypeptide encoded by phosphodiesterase 4D gene comprises expression of a splicing variant polypeptide in a test sample that differs from a splicing variant polypeptide expressed in a control sample.
22. A method of identifying an agent which alters activity of a polypeptide of Claim 11, comprising:
- a) contacting the polypeptide or a derivative or fragment thereof, with an agent to be tested;
  - b) assessing the level of activity of the polypeptide or derivative or fragment thereof; and
  - c) comparing the level of activity with a level of activity of the polypeptide or active derivative or fragment thereof in the absence of the agent,
- wherein if the level of activity of the polypeptide or derivative or fragment thereof in the presence of the agent differs, by an amount that is statistically significant, from the level in the absence of the agent, then the agent is an agent that alters activity of the polypeptide.

23. An agent which alters activity of a polypeptide encoded by phosphodiesterase 4D gene, identifiable according to the method of Claim 22.
24. An agent which alters activity of a polypeptide encoded by phosphodiesterase 4D gene, wherein the agent is selected from the group consisting of: a  
5 phosphodiesterase 4D gene receptor; a phosphodiesterase 4D gene binding agent; a peptidomimetic; a fusion protein; a prodrug; an antibody; and a ribozyme.
25. A method of altering activity of a polypeptide encoded by phosphodiesterase 4D gene, comprising contacting the polypeptide with an agent of Claim 24.
- 10 26. A method of identifying an agent which alters interaction of the polypeptide of Claim 11 with a phosphodiesterase 4D gene binding agent, comprising:
- a) contacting the polypeptide or a derivative or fragment thereof, the binding agent and with an agent to be tested;
  - b) assessing the interaction of the polypeptide or derivative or  
15 fragment thereof with the binding agent; and
  - c) comparing the level of interaction with a level of interaction of the polypeptide or derivative or fragment thereof with the binding agent in the absence of the agent,
- 20 wherein if the level of interaction of the polypeptide or derivative or fragment thereof in the presence of the agent differs, by an amount that is statistically significant, from the level of interaction in the absence of the agent, then the agent is an agent that alters interaction of the polypeptide with the binding agent.
- 25 27. An agent which alters interaction of a phosphodiesterase 4D gene polypeptide with a phosphodiesterase 4D gene binding agent, identifiable according to the method of Claim 26.



28. An agent which alters interaction of a phosphodiesterase 4D gene polypeptide with a first phosphodiesterase 4D gene binding agent, selected from the group consisting of: a phosphodiesterase 4D gene receptor; a second phosphodiesterase 4D gene binding agent; a peptidomimetic; a fusion protein; a prodrug; an antibody; and a ribozyme.
29. A method of altering interaction of a phosphodiesterase 4D gene polypeptide with a phosphodiesterase 4D gene binding agent, comprising contacting the phosphodiesterase 4D gene polypeptide and/or the phosphodiesterase 4D gene binding agent with an agent of Claim 28.
30. A method of identifying an agent which alters expression of phosphodiesterase 4D gene, comprising the steps of:
- a) contacting a solution containing a nucleic acid of Claim 1 or a derivative or fragment thereof with an agent to be tested;
  - b) assessing the level of expression of the nucleic acid, derivative or fragment; and
  - c) comparing the level of expression with a level of expression of the nucleic acid, derivative or fragment in the absence of the agent,
- wherein if the level of expression of the nucleotide, derivative or fragment in the presence of the agent differs, by an amount that is statistically significant, from the expression in the absence of the agent, then the agent is an agent that alters expression of phosphodiesterase 4D gene.
31. An agent which alters expression of phosphodiesterase 4D gene, identifiable according to the method of Claim 30.
32. A method of identifying an agent which alters expression of phosphodiesterase 4D gene, comprising the steps of:

- a) contacting a solution containing a nucleic acid comprising the promoter region of phosphodiesterase 4D gene operably linked to a reporter gene, with an agent to be tested;
- b) assessing the level of expression of the reporter gene; and
- 5 c) comparing the level of expression with a level of expression of the reporter gene in the absence of the agent,
- wherein if the level of expression of the reporter gene in the presence of the agent differs, by an amount that is statistically significant, from the level of expression in the absence of the agent, then the agent is an agent that alters
- 10 expression of phosphodiesterase 4D gene.
33. An agent which alters expression of phosphodiesterase 4D gene, identifiable according to the method of Claim 32.
34. A method of identifying an agent which alters expression of phosphodiesterase 4D gene, comprising the steps of:
- 15 a) contacting a solution containing a nucleic acid of Claim 1 or a derivative or fragment thereof with an agent to be tested;
- b) assessing expression of the nucleic acid, derivative or fragment; and
- 20 c) comparing expression with expression of the nucleic acid, derivative or fragment in the absence of the agent,
- wherein if expression of the nucleotide, derivative or fragment in the presence of the agent differs, by an amount that is statistically significant, from the expression in the absence of the agent, then the agent is an agent that alters
- 25 expression of phosphodiesterase 4D gene.
35. The method of Claim 34, wherein the expression of the nucleotide, derivative or fragment in the presence of the agent comprises expression of one or more

splicing variant(s) that differ in kind or in quantity from the expression of one or more splicing variant(s) the absence of the agent.

36. An agent which alters expression of phosphodiesterase 4D gene, identifiable according to the method of Claim 34.
- 5 37. An agent which alters expression of phosphodiesterase 4D gene, selected from the group consisting of: antisense nucleic acid to phosphodiesterase 4D gene; a phosphodiesterase 4D gene polypeptide; a phosphodiesterase 4D gene receptor; a phosphodiesterase 4D gene binding agent; a peptidomimetic; a fusion protein; a prodrug thereof; an antibody; and a ribozyme.
- 10 38. A method of altering expression of phosphodiesterase 4D gene, comprising contacting a cell containing phosphodiesterase 4D gene with an agent of Claim 37.
39. A method of identifying a polypeptide which interacts with a phosphodiesterase 4D gene polypeptide, comprising employing a two yeast hybrid system using a  
15 first vector which comprises a nucleic acid encoding a DNA binding domain and a phosphodiesterase 4D gene polypeptide, splicing variant, or fragment or derivative thereof, and a second vector which comprises a nucleic acid encoding a transcription activation domain and a nucleic acid encoding a test polypeptide, wherein if transcriptional activation occurs in the two yeast hybrid system, the  
20 test polypeptide is a polypeptide which interacts with a phosphodiesterase 4D polypeptide.
40. A phosphodiesterase 4D gene therapeutic agent selected from the group consisting of: a phosphodiesterase 4D gene or fragment or derivative thereof; a polypeptide encoded by phosphodiesterase 4D gene; a phosphodiesterase 4D  
25 gene receptor; a phosphodiesterase 4D gene binding agent; a peptidomimetic; a

5 fusion protein; a prodrug; an antibody; an agent that alters phosphodiesterase 4D gene expression; an agent that alters activity of a polypeptide encoded by phosphodiesterase 4D gene; an agent that alters posttranscriptional processing of a polypeptide encoded by phosphodiesterase 4D gene; an agent that alters interaction of a phosphodiesterase 4D gene with a phosphodiesterase 4D gene binding agent; an agent that alters transcription of splicing variants encoded by phosphodiesterase 4D gene; and a ribozyme.

41. A pharmaceutical composition comprising a phosphodiesterase 4D gene therapeutic agent of Claim 40.
- 10 42. The pharmaceutical composition of Claim 41, wherein the phosphodiesterase 4D gene therapeutic agent is an isolated nucleic acid molecule comprising a phosphodiesterase 4D gene or fragment or derivative thereof.
43. The pharmaceutical composition of Claim 41, wherein the phosphodiesterase 4D gene therapeutic agent is a polypeptide encoded by the phosphodiesterase 4D gene.
- 15 44. A method of treating stroke in an individual, comprising administering a phosphodiesterase 4D gene therapeutic agent to the individual, in a therapeutically effective amount.
45. The method of Claim 44, wherein the phosphodiesterase 4D gene therapeutic agent is a phosphodiesterase 4D gene agonist.
- 20 46. The method of Claim 45 wherein the phosphodiesterase 4D gene therapeutic agent is a phosphodiesterase 4D gene antagonist.

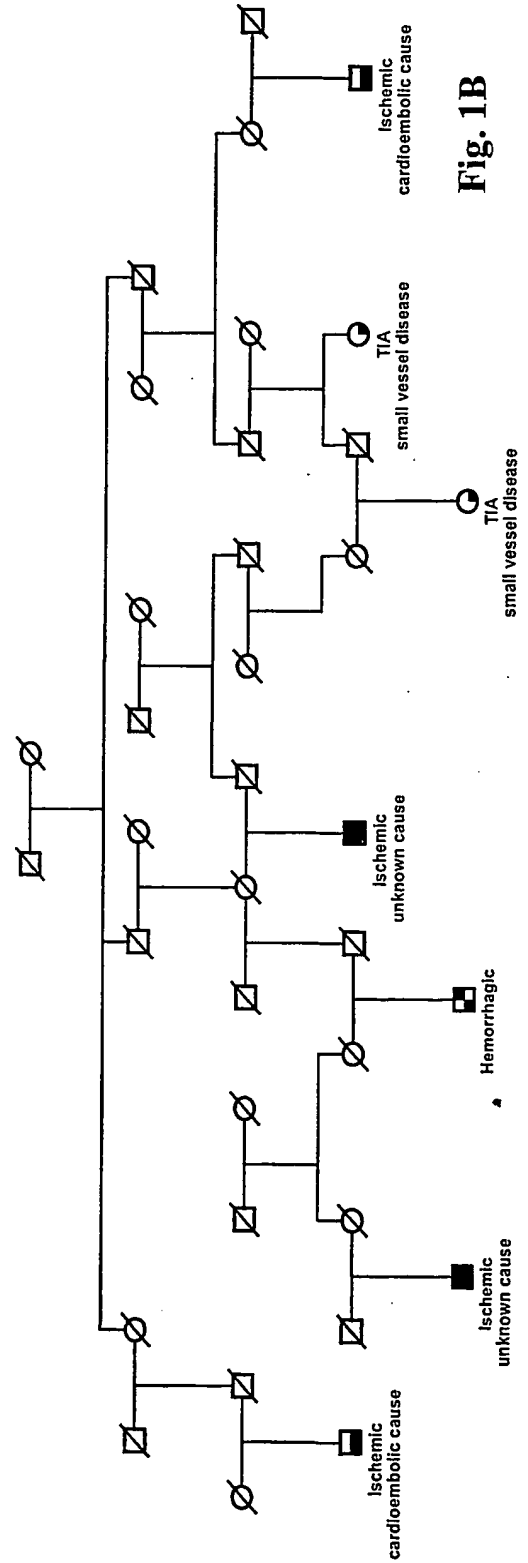
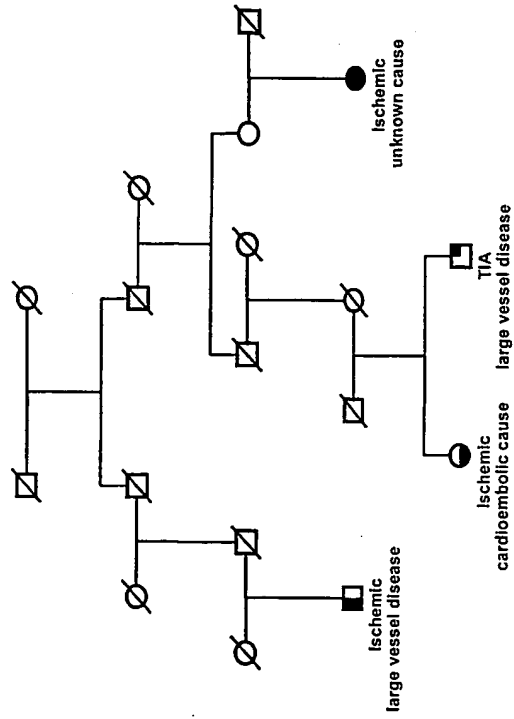
47. A transgenic animal comprising a nucleic acid selected from the group consisting of: an exogenous phosphodiesterase 4D gene and a nucleic acid encoding a phosphodiesterase 4D gene polypeptide.
48. A method for assaying a sample for the presence of a phosphodiesterase 4D gene nucleic acid, comprising:
- 5 a) contacting said sample with a nucleic acid comprising a contiguous nucleotide sequence which is at least partially complementary to a part of the sequence of said phosphodiesterase 4D gene nucleic acid under conditions appropriate for hybridization, and
- 10 b) assessing whether hybridization has occurred between a phosphodiesterase 4D gene nucleic acid and said nucleic acid comprising a contiguous nucleotide sequence which is at least partially complementary to a part of the sequence of said phosphodiesterase 4D gene nucleic acid.
- 15 49. The method of Claim 48, wherein said nucleic acid comprising a contiguous nucleotide sequence is completely complementary to a part of the sequence of said phosphodiesterase 4D gene nucleic acid.
50. The method of Claim 48, comprising amplification of at least part of said phosphodiesterase 4D gene nucleic acid.
- 20 51. The method of Claim 48, wherein said contiguous nucleotide sequence is 100 or fewer nucleotides in length and is either: a) at least 80% identical to a contiguous sequence of nucleotides in SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof; b) at least 80% identical to the complement of a contiguous sequence of
- 25 nucleotides in SEQ ID NO: 1 which may optionally comprise at least one

polymorphism as shown in Table 9, 10 or combination thereof; or c) capable of selectively hybridizing to said phosphodiesterase 4D gene nucleic acid.

52. A reagent for assaying a sample for the presence of a phosphodiesterase 4D gene nucleic acid, said reagent comprising a nucleic acid comprising a  
5 contiguous nucleotide sequence which is at least partially complementary to a part of the nucleotide sequence of said phosphodiesterase 4D gene nucleic acid.
53. The reagent of Claim 52, wherein the nucleic acid comprises a contiguous nucleotide sequence which is completely complementary to a part of the nucleotide sequence of said phosphodiesterase 4D gene nucleic acid.
- 10 54. A reagent kit for assaying a sample for the presence of a phosphodiesterase 4D gene nucleic acid, comprising in separate containers:
- a) one or more labeled nucleic acids comprising a contiguous  
nucleotide sequence which is at least partially complementary to a  
part of the nucleotide sequence of said phosphodiesterase 4D gene  
15 nucleic acid, and
- b) reagents for detection of said label.
55. The reagent kit of Claim 54, wherein the labeled nucleic acid comprises a contiguous nucleotide sequences which is completely complementary to a part of the nucleotide sequence of said phosphodiesterase 4D gene nucleic acid.
- 20 56. A reagent kit for assaying a sample for the presence of a phosphodiesterase 4D gene nucleic acid, comprising one or more nucleic acids comprising a contiguous nucleotide sequence which is at least partially complementary to a part of the nucleotide sequence of said phosphodiesterase 4D gene nucleic acid, and which is capable of acting as a primer for said phosphodiesterase 4D gene  
25 nucleic acid when maintained under conditions for primer extension.

57. The use of a nucleic acid which is 100 or fewer nucleotides in length and which is either: a) at least 80% identical to a contiguous sequence of nucleotides in SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof; b) at least 80% identical to the complement of a contiguous sequence of nucleotides in SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof; or c) capable of selectively hybridizing to said phosphodiesterase 4D gene nucleic acid, for assaying a sample for the presence of a phosphodiesterase 4D gene nucleic acid.
58. The use of a nucleic acid which is 100 or fewer nucleotides in length and which is either: a) at least 80% identical to a contiguous sequence of nucleotides in SEQ ID NO: 1; b) at least 80% identical to the complement of a contiguous sequence of nucleotides in SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof; or c) capable of selectively hybridizing to said phosphodiesterase 4D gene nucleic acid, for assaying a sample for the presence of a phosphodiesterase 4D gene nucleic acid that has at least one nucleotide difference from SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof.
59. The use of a nucleic acid which is 100 or fewer nucleotides in length and which is either: a) at least 80% identical to a contiguous sequence of nucleotides in SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof; b) at least 80% identical to the complement of a contiguous sequence of nucleotides in SEQ ID NO: 1 which may optionally comprise at least one polymorphism as shown in Table 9, 10 or combination thereof; or c) capable of selectively hybridizing to said phosphodiesterase 4D gene nucleic acid, for diagnosing a susceptibility to stroke.

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Genetic map

Combined map - cM

Physical map - Mb

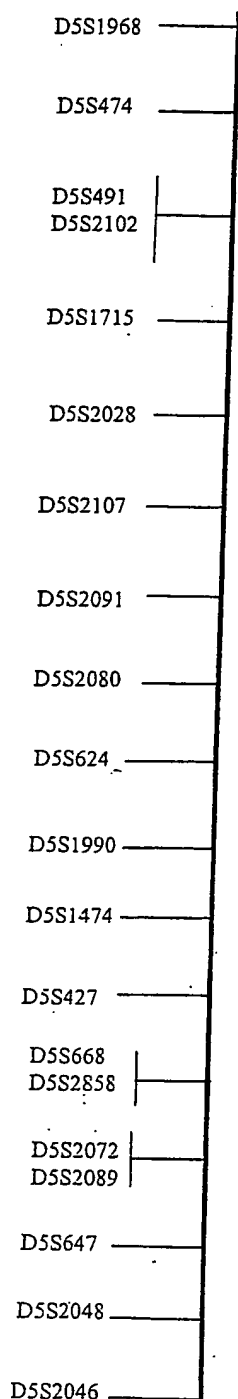


Fig. 2A

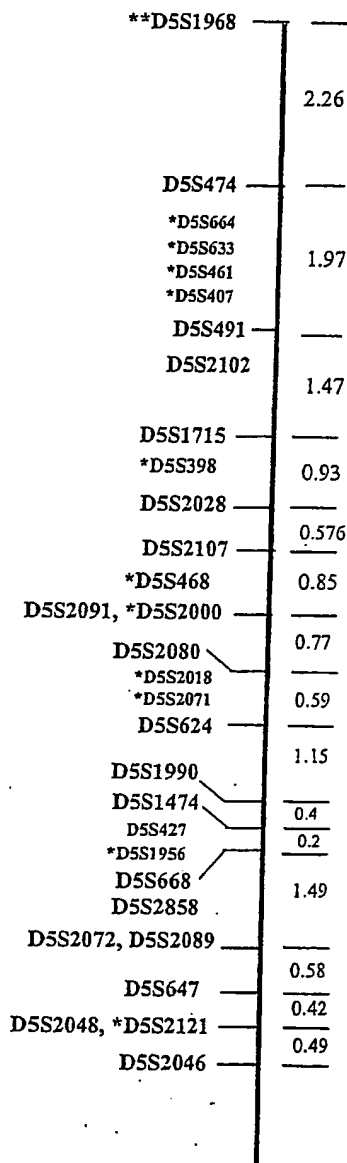


Fig. 2B

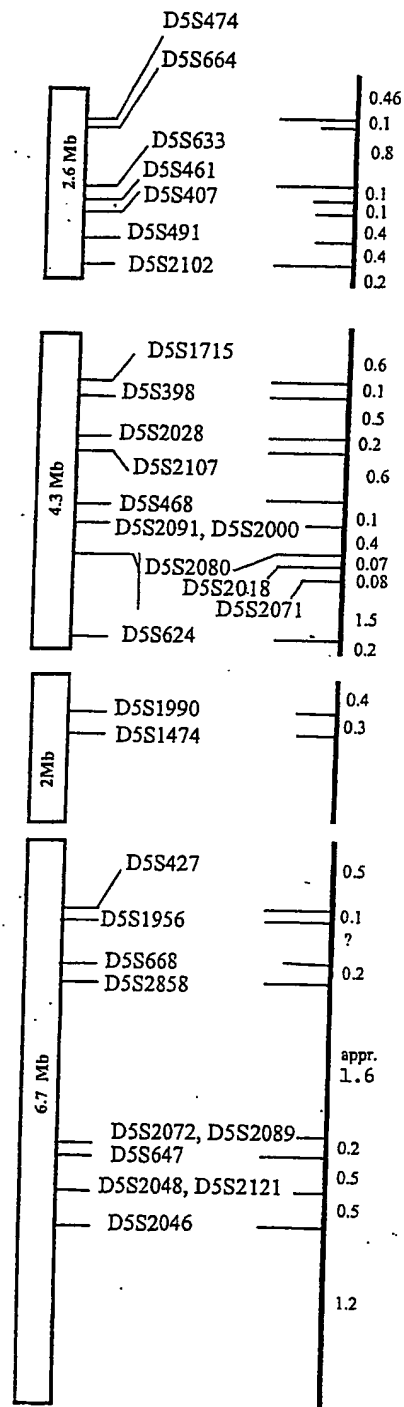


Fig. 2C

\*Markers only assigned in physical map  
 \*\*Marker in blue - only assigned in genetic map

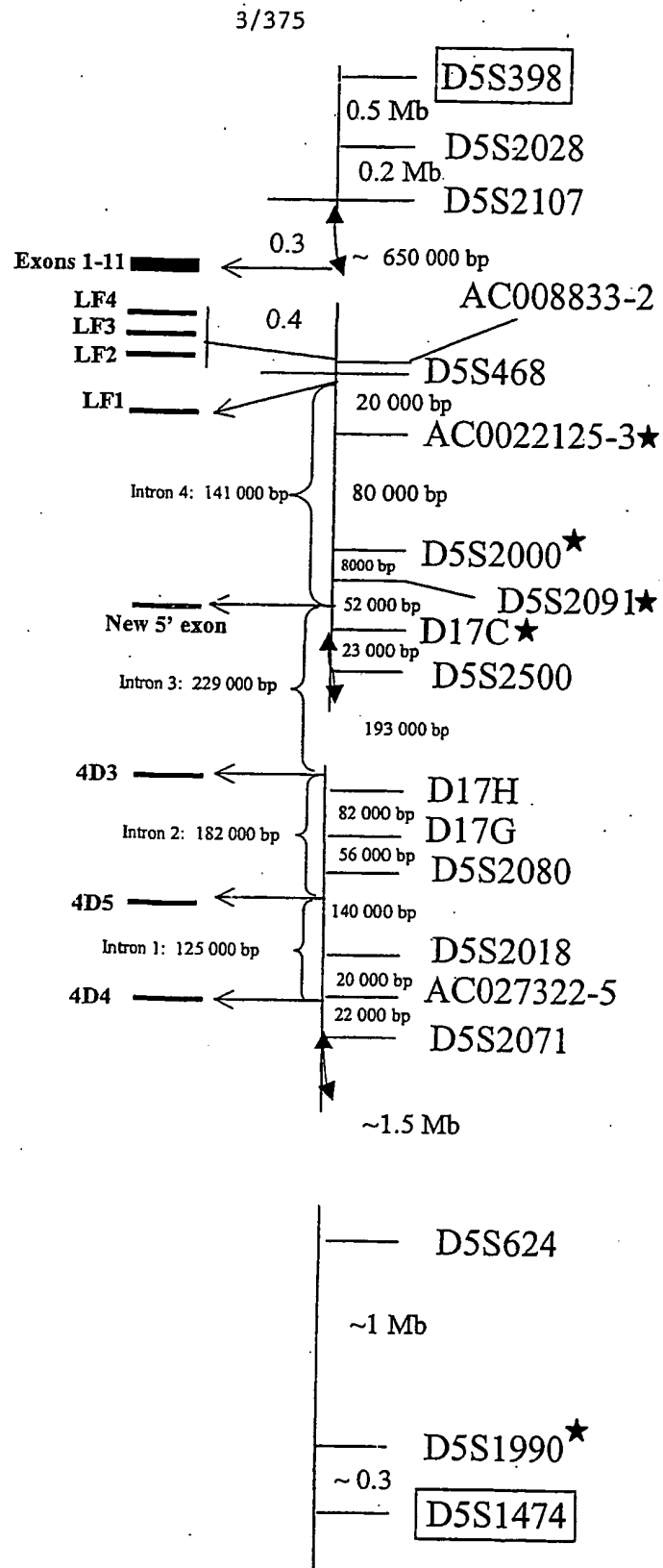


Fig. 3

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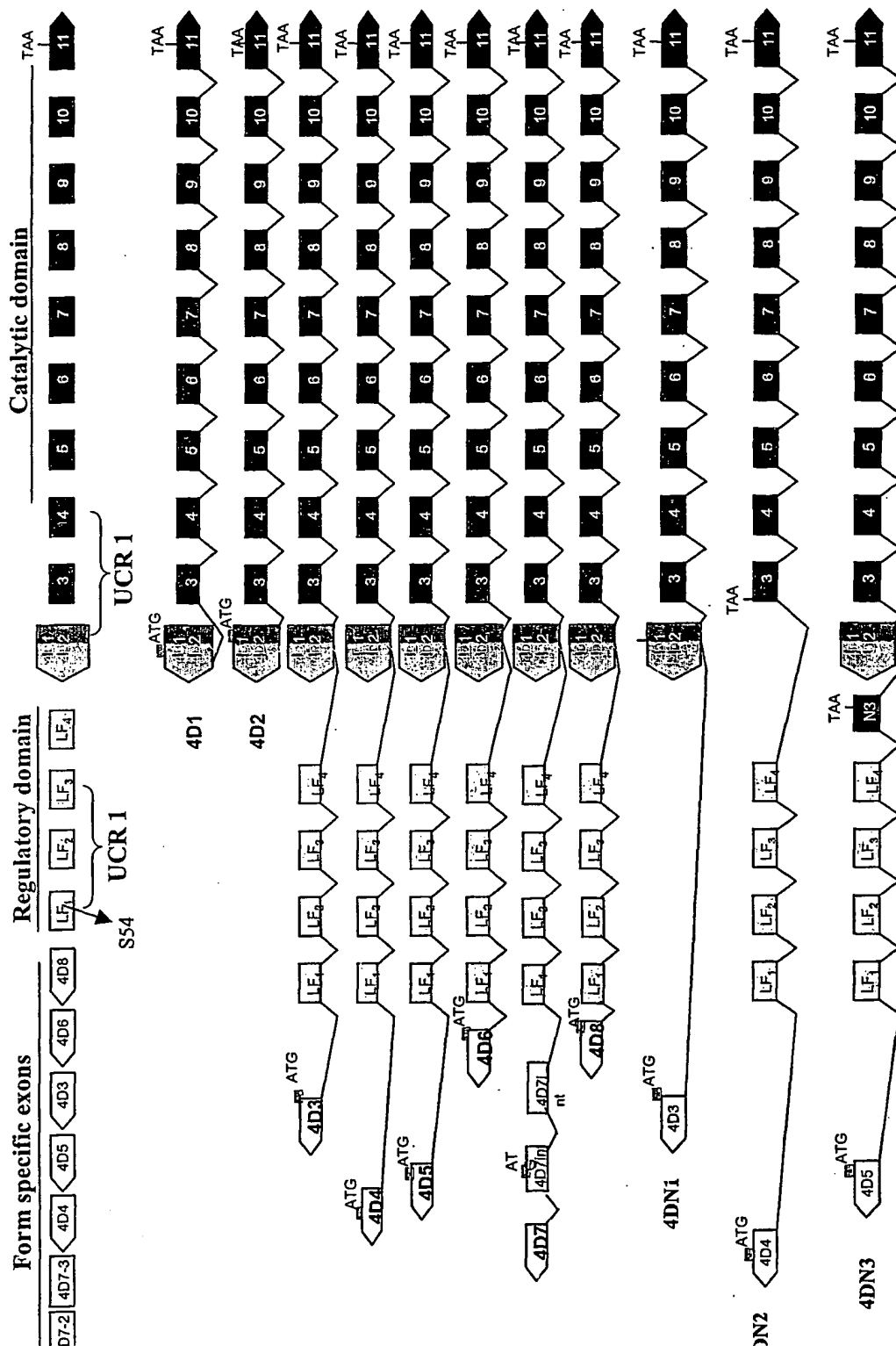
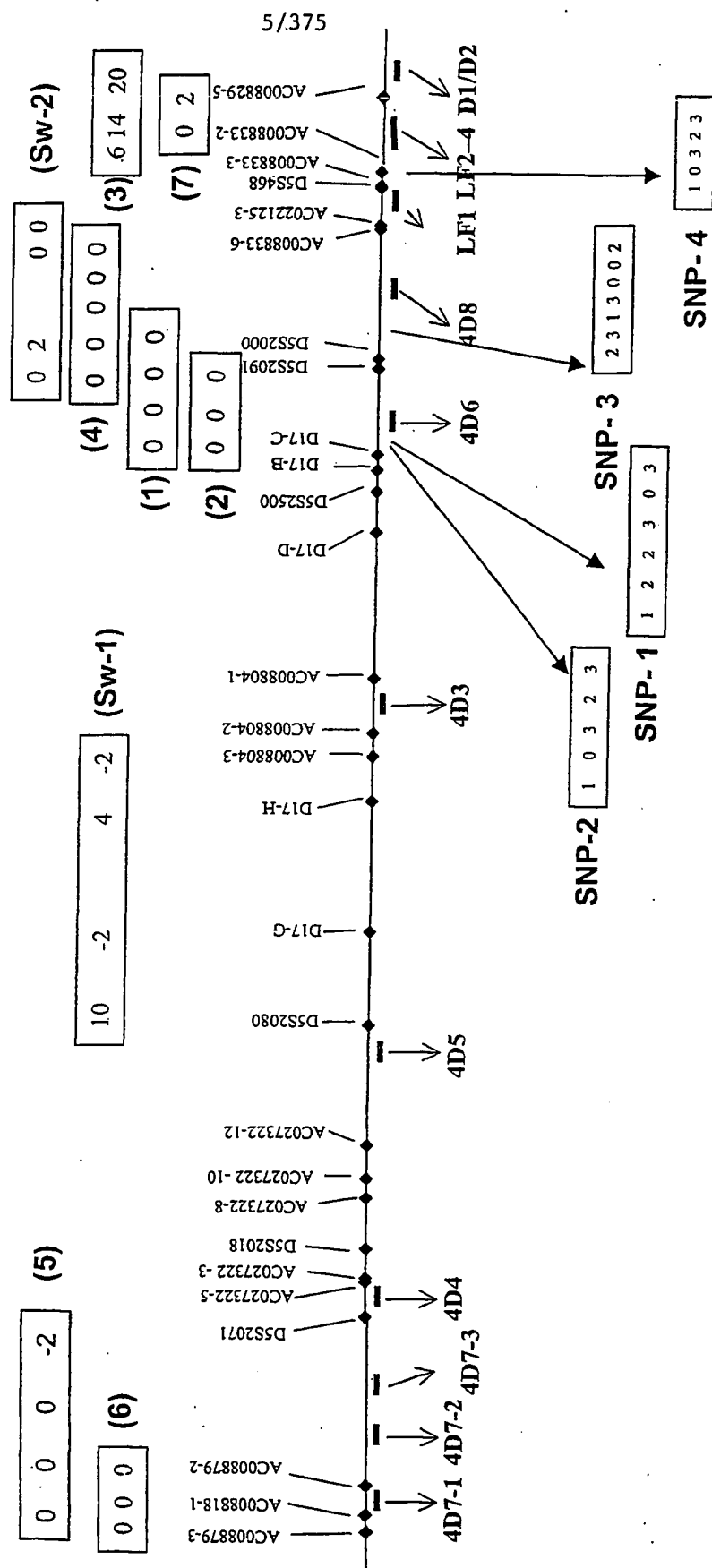


Fig. 4

## microsatellite haplotypes



## SNP haplotypes

Fig. 5

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&gt;Contig\_2 (1,1691140)

CATTTTTTGAAAAGAACATCTGAAAGACAAAATGGGGAATGGCGAGTCTGTCTAATAAACCATTTTTGAGAAAACCTGGATA  
TTCATATAAAGAAAGTATAAAGAGGACTGTTATGTTGCACAATACACAAAATCAACTCAAATAAATTAATGACCTAAA  
CTTAATATCAGAAATGATGAAACTTTTAAAGAAAACATAGGGTGAATGTATGTTTAGGGAACTCAAATTTATGTTCA  
CAGGTTGCAAAAAGAAAAATATGAGAAAAACATAGAGGAAAAATGATTCTGCCAATAAAGTGAGTTGGAAATAATTTTTTC  
TGTTTTTCACAAAATCATTGCTAACAAAAGCAAAAACAAGTGTGGGACTATAGAAAACCTGATGAGCTTCTGCATAGGAA  
AGAAAAGAATGAACCAATACAGAAGGCATCCAGTAGATTGGGACAAAATTATGGGGGATTATATATCTGAAAGGGTTGT  
TATCTAACATGTATAAGAAATTACCACTACTAAGTAGGAAAAACAACAACAAAAACAATAACAGATGGAAAT  
GGGCAAGAACCTGAATAGATGTTTCTGAATAGAAGACATGAATTTGACTACCAGGTAAAAGAAAAGGTTCTCAACATA  
CCTAATCATCAAGAAAATGTACATTAATACTCACTGAGATATCTTCTCCACTCTAATTGGAATTAATGTTACAAAAAG  
AAACAAATTTTTTACAATGAAATGATCAGTGTGGAGTTGGATGAAGGGGTACTATTACACTACTACACAGTGTAGGGTG  
GAATTTAAGTCAGTATACACACTATGAAAAATAGTTGGAGTTTGCTCAAAAAATAAATACAACTATCATTTGCTGTAG  
TAATCCCACTGAAATATACATTTTAAGAAAATGAAATCAGTATATTGAAGAGATACGTGAAATCCTACATTTCTTGA  
CACATTATTACAGCACTCAAGATGTGGAATCAACCTACCTGTCCAGGAACAGATGAAGAGATAAAGAAAATGCAGTGT  
GTATACACAGTGGAAATGCTCTTACCATAAAAAATTCACGGAATCATGTCTATTGCAGCAACATGGTGGACAATGTAAGA  
AAAGCTCCCGGAGAGCTGTACAGAAGCTGCCTCCTCAGCAGTCAAGGCCAGGGACCGAGCTGTTTTTACCCCAAGA  
CAGGCGCGGCCCAAGTCATCCAGAGCTGCCATGGCACCCTCAGTCGGGTCTGAGGAATCCTACACAAGCTACTT  
ATATCAGTGTACTAGGATAATCCATAGAACTTTTGGGAAAGAAGTTTAAGACCTTTCTCCACCATTTCAGCAGGAT  
AAATTCCACTGGATTAGAAAATGAAATGTTAATAATGCAATAAGTACATATTTATATCTGTATATAAATAACAGTTG  
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TTGAGACTCTATGCAGGAAAGGGCATCATCAGTGCATGGATGAATCTGTATCTAATTTTAAACAATTTCCAATGGTGC  
CTGTTTCCTTTCTTTGAAAATCTCTGGAGAAATAGTTCCTCTTGCTGTGTCTTTCTTTAGGCAAGAATTTTACTAAT  
TGATGTGTAGTCTGAATCCTGGCTAAGTATAAACCTTTTATTTTATACCTGTTCTTAGTGAAAATGAAACTGTGACT  
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CCATTGGCCTTTTCAAGGAACTCCAGGCCGTCTCAAAACCTTCATGTTTCATTTCTTTTTCAGAGCTCCCAAAAAGAATA  
GCTTGCTCTTGACGTTGTACATGTTAGTGAATGATCAGGACTACTTTGCAAAGATGAAAAATTTGTGTTTCTAGTGAT  
TTGAAAATAGAAATCTGATGTAACATATTAGATATTGGGAAAGAAGGTGACGAAGGTAGGTATACCCGAAAGCACTTAAC  
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ATTCACCTATTCCACTTCAAGCCAGCTAAATGATTGTTTCCCTGATGGCAAAAAGTCTCAGATTGATTGCACAGTTTATT  
TGTTGGATTGTTTATGCTCTTTTATTATTATTCTTATTTACCAATGAAAATATCACTAAGTTCTTTGGTTTGTG  
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AGATTTTATGTGAAACTACTTGTGAGAGATCTTAACAAATTTGTAGTTAGAGAAAGCACTATATATCATTTGGAAATG  
CAAGAAAACAGTTACCTTTGGGGCAACAGAGGCCCTTGTCAATTTCTCAAAAGAAGGAAGCATCAGCATTTTGTATGATG  
ATGTTGAGATTGTAGAAATGATGAAGGTGAAAAAGTTATTCTAGCTTATGTTTAGCAAAATGAAATGAACCCAAATAAT  
AAAACAGTTACAACATGAAATCTCTTTGGGAGAAAAAAGATAGAAATGCTAATGTCCTTCAGAACTTCTTAAACCA  
GAACCTTAAAAAAGAGAGAAGCTTTTAAAAAATCATAAATAGTTTATGATCTTGAAGGGTTTAAAGTATTGTAGTGAAG  
TGCTTTTGAATTTATTTGTAGGTCTTCTGTGTATTTAAAAGCTAAGTTATCTTGTATCATTTTCTTATACCTTT  
GTCAGTAACCTCTTAGTGATGAAATAAAAAAGATTAGGTAATCATCCAGCAATGGGGAAGAGTTAAGGAACAAAGAGC  
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CGTACAAATGAAATATTCAGCCATAAAAAGGAATGCAATGTTGTTGCATGCTACAACAACCTTGGATGAATCTTGGAAACA  
TTATTCTAAGTAAAAGATTCCATTTTATGAAATGTCCAGAAATAGGCAAACTATAGAGACAAAGATAAGTGGTTTCCA  
GGGTTGTGGGAGGAGAGAATGGGAAGGTGACAAAATGTTCTGGATTAGATAATAGGGATGGGTATAACTTAGTGACT  
ATACAAAAAATCACTAGAAATCATATACTTTAAAAAAGATATTCCCATAAAAAAGAACAAAGCAAGAAAAAATAACT  
AAATTTGACTTTTAGGAGTTAAAAGAAATATAGTATCTCAAATGAAATTTTGCTGGATAGGATTAGGGGTAGATTAGAC  
ACTCCAGAAGTTAAAGATCAGTGAGCTTGAATACACACAATAGAAGCTAGTCTAAACAAAGCACAGAGAGAAAAAGAA  
CAAAACAACCTCCCAACAACAAAACAAAACCAAGCAACCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCAAGCA  
AGTCTAATATCATGTAATTGGATATCCCTGAAGGAGGAGGGGGTGAAGTGTATCTTTTGTGCTCCCTATGACTGCTG  
TTAAGATTTTATTAFTGATTTTATAGGAATTGCATTATATCTTGGTGTGGTGTGTTTAAACAGAGGTATAGCTTATCAACC

Fig. 6.1

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AATGGTGGAGCTAAAATAGAATACTTGAAGTACT.ATGGATGCACAGAATCTAAGATGGCCCCCAATTTTCCTGCTAC  
CTTGTACCCCTTGAGTATATGTGGGACCTGTTACTTGTCTTAACCAATAAAATCTCACACCAGTTAGAATGGTGATTAT  
TAAAAAGTCAGGAAACCAACGGATGCTGGAGAGGATGTGGAAAAATAGGAACGCTTTTACACTGTTGGTGGGAAGTGTA  
TTAGCTCAGCCATTGTGGAAGACAGTGGCAATTCTCTCAAGGATCTAGAACTAGAAATACCAATTGACCCAGCCATCCCG  
TTACTGGGTATATAACCAGAGGATTATAAATCATTCTACTATAAAGACACATGCACACGTATGTTTATTGCGGCACGTG  
TCACAATAGCAAAGACTCGGAACCAACCCAAATGTCCATCAGTGATAGACTGGATGAAGACAATGTAGCACATATACAC  
CAGGGAATACTATGCAGCTATAAAAAATGACGAGTTTCATGTCCTTTGACAGGACATGGATGAAGCTGGAAACCATCATT  
CTCAGCAAACATATCACAAGAACAGAAAAACCAACACCACATCTTCTCACTCATAAGTGGCAGTTGAACAATGAGAACAC  
ATGGACACAAGGCAGGGAACATCACACACCGGGGCTGTGTGGGGGGTTCGGGGGCAGGGGGAGGGATAGCATTAGGAGA  
AATACCTAATGTAGTTGACATTACTTTGGTTTGACATTACTTTGGTTTGTGGGTGCCACAACACCACCATGGCAGATGTA  
TACCTGTGTTACAAACCTGCACGTTCTGTACATGTACCCAGAATCTAAAGTATAATAATAATAAATAACATGTATGT  
CAAGGGTGACATGTAATTAAGCAAAGCTCAGTAAATTTAAATGATTGAAATTGTACTAAGTTTCTGACCCAGCTAG  
ATTAAGCTAGAACTCCAGGTCCAGATGGCTTACTGATCAATTTTACCCAACACTTTGGAATGAATAATGACATTTGTAT  
GAAAGTCTTTTCAGAAAATAGAAAGTAGAGGAATATTTCTGAACCATTTTATGAGGCCAGTATTGACATGGGTAATAA  
AACCAACAAATACATTACACAAAAAATTTGTAGCACATGATATCCCTGATAAAACCAATGCAAAAATACATTAAATTT  
GCAAATTTGAATGCAGCAGTAGATAAAAAAGGACAATAATACATCATGGCCAAGTAGGGTTTATCCAGCAAGGTAGACT  
GGTTTAACTATAAATCAATCAGTATAATTCATCATATCGATAGGATGAAGGAAAAAACTCATGTGACCATCTCAAC  
GATTGCAGAAAATGTATGTGACAAATATTCAACACCCATTAATGATAAAAAATGTTAAATACATTACAATAAGAAAACT  
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CTATGGTCAGAAAAAGACAAACTCATCACTGCTATACAACATTTTCATGAGAGGTGAGCAGTGTCTTCATGCTTAAAG  
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CTAAGGATGACTTAAATAACTGGAGAGACATACATATGTTTCATGGAAGTGAAGATATGCAATATTGATAAGATGTCAATT  
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CCTGTTTTTAAGACTTACTATAAAATCTTACTTTTCAGGTGTGTTATTGTTATCTTACTGTAAAGTCTTCTGTAAAGTA  
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ACCTTAATTTTATTCTTAGGTATTTATCTAAGGGATAAGAACACATGTGTTTCAACAATTTGTTGGTGTTCATAGCAG  
CTTTATTTCATAATATCAAAACATTGGAACAATCTACATGTCTATCAGCAAGTGAATGGAATAATTTTGTAGTATAT  
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ATTTTTGTAGTATTTTAAATTATAATCAAAATTTGAACAAAAAGTAACACATGTTATTTGAGGACTTTTTTTTTTAAAG  
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CCCCCTCCCCCTACCCAGGACAGGCCCCGGTGTGTTATATTTCCCTTTCTGTGTTCAAGTGTCTCATTGTTCAATG  
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CTACAAAGGACATGAACTCATCTTTTTTATGGCTGCATAGTATTTTCATGGTGTATGTGTGCCACATTTTATTTTATT  
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TCCCCCTACCCGACCCACAACAGTCCCCGGTGTGTGATGTTCCCTTCTGTGTCAATGTGTTCTCATTGTTCAATT  
CCCACCTATGAGTGGCAACATGTGGTGTGTTGGTTTTTGTCTTGGATAGTTTGTGAGAAATGATGGTTTCCAGTTTC  
ATCCATGCTCCCTACAAAGCACATGAACCTATTATTTTTCATGGCTGCATAGTATCCCGTGGTGTATAGTGCCACATTTT  
CTTAATCCAGTCTACTGATGACATTTGGGTTGGTTTCCAAGTCTTTGCTATTGTGAATAGTGCCCTCAATAAACATA

Fig. 6.2

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CGTGTGCATGTGTCTTTATAGCAGCATGATTTATAATCCTTTGTGTATATACCCAGTAATGGGATGGCTGGGTCAAATG  
GTATTTCTAGTTCTAGATCCTTGAGGAATCGCCACACTGTCTCCACAATGGTTGAACAGTTTACAGTCCCACCAACA  
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TTTTGGCTGCATAAATGTCTCTTTTGAGAAGTGTCTGTTCAATCCTTCGCCTACTGTGTGATGGGGTGTGTGTGT  
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GTTTGTCAATTTTGGCTTTTGTGCTTGTCTTTGGTGTTTTAGACATGAAGTCCTTGCCCATGCCTATGCTCTGAATG  
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TTGTATAAGGTGTAAGGAAGGATCTAGTTTTCAGCTTTCTACATATGGCTAGCCAGTTTCCAGCACCATTTATTA  
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GAGGGCTCTGTCTGTTCATTGGTCTATATCTCTGTTTGGTACCAGTACCATGCTGTGTGTGTGACTGTAGCCTTGT  
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CTGTTATTTGGTGTATAAGAAATGCTTGTGATTTTGTGCAATTGATTTTGTATCCTGAGACTTTGTGAGGTTGCTTATGA  
GCTTAAGGAGATTTTGGGCTGAGACGATGGGGTTTCTAGATATAAATCATGTCTATGCAACAGGGACAATTTGAC  
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AATAGGAGTGGTGAGAGAGGACATCCCTGTCTTGTGCCAGTTTCAAAGGGAATGCTTCCAGTTTGTGCCCATTCAGTA  
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GATTATGGTGCATCAGCTTTTGTATGTGCTGCTGGATTGCGTTTGCCAGTACTTTATTGAGGATTGTTTCAATGATGA  
CATCAGGGATATTAGTGTAAATTTCTCTTTTGTGTGTCTCTGCCAGGCTTTGGTATCAGGATGATGCTGGCCTCA  
TCAAATGAGTTAGGGAGGATTCCCTCTTTTCTATTGATTGGAATAGTTTCAAGGAATGGTACCAGCTCCTCCTTGT  
ACCTGTGGTAGAATTTGGCTGTGAATCCGTCTGGTCTGGACTTTTATTGGTTGGTAAGCTATTAAATATTGCCTCAAT  
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TGCTAGCAGTGTATCAATTTTGTGATCTTTTCAAGAAACCAGCTCCTGGATTCAATGATTTTGAAGGTTTGTGT  
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TATTGTGTGGGAGTCTACGTCTCTTAGTAGGTCTCTAAGGACTTGCTTTATGAATCTGGCTGCTCCTGTATTGGGTGCA  
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CCTCGATGGTCTTTACAATTTGGCATGATTTTGCAGTGGCTGGTACCGTATGTTCTTCTCATGTTTAGTGCTTCTCCTC  
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CACTTATGAAGCTTAGTTTGGCTGGATATGAAATCTGGGTTGAAAATTTCTTCTTCCAGGAATGTTGAATATTGGTCC  
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TCTCGCTTCATTTCACTTATTGATCTTCCATCACTGATACCTTCTCTTCCATTGATCGAATCAGCAACTGAGGCTTG  
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AGCTGCGTTCTTTGGAGGAGGAGAGGTGCTGATTTTAGAGTTTCCAGTTTCTGCTCTGTTTCTCCCATCTT  
TGTGGTTTTATTACCTTTGGTCTTTGATGATGCTGACGATGGGGTTTTGGTGTGGATGTCCTTTCTGTTTGT

Fig. 6.3

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AGTTTTCTTCTAACAGTTAGGACCCCTCAGCTGCAGGTCTGTTGGTGTGTTGCTGGAGGTCCACTCCAGACCCTGTTTGC  
CTGGGTATCAGCAGCAGAGGCTGCAGAACAGCAGATATTGGTGAACAGCAAATGTTGCTGCCTGATCGTTTCTTTGGAA  
GTTTTTCTCAGAGGAGTACCCGGCCATGTGAGGTGTTCATTACAGCCCTACTGCGGGGTGCCTCCAGTTAAGCTACTC  
GGAGTCAGGGACCCACTTGAGGAGGCAGTCTGTCCATTCTCAGATCTCAAGCTGCATGCTGGGAGAACCCTACTCTC  
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GCAATGAGCAAGGCTCCGTGGGCATAGGACCTCCGAGCCAGGCACGGGATATAATCTCCTGGTGTGCCATTTGCTAAG  
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CCAGGTTCAAGTGATTCTCCTGTCTCTGCTCCTGAGTAGCTGGAATTACAGGCATGTGCCACCATGCTGGCTATGTT  
TTGTATTTTAGTAGAGACAGGGTTTGGCCATGTTGGCCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACCCGC  
CTTGGCTGCCCCAAGTGCTGGGATTACAGGCATCAGCCACCATGCTGGCCTGCTAATAATAACTTTAAAAACCTTAAC  
ATTTTCATATTTTGAATAAATAAGTACTCATATCCAGTTGAAAGGGAATAACAACATTATTTAATAAACATATTAC  
ATCTAAATATTAAAAATTCCTATCATATGATAAATTAATAAAGAGAAGAGATTAAAGAGGGCTTAGAAACATAAAA  
CAAATATAAACAACTTTACAAACTGAATGGATTAGCAGGGTGTGGGGCAGATGCTTGTATTTCTATCTCTTTGGAA  
GGCTGAAGCAGAAGGATCCCTTGAACCTAGCCAGGCAATAAAGCAAGACCCCTGTCTCTTAAACAAAACAAAACACAAA  
ACAAAACAGAGACAATTGGAGGAAGACAGAACTAGAAAGAAAGTGTAATAAATAAATAACACCCCAAACTCAGAGAA  
ATTAAGTGATTTTTAAAGTTGGGTTGTTTATTTGTTAACTATGAGCATGACCGCTCTACAGTCAGAAAAGATAAAT  
CAAGGCTCAGATGGGGAACGCATGGTGTCTGCTTTTAGAACCATGCTCAGAAAGATTGTTGGAGTTTAAACAAAACAG  
TTCAGACTTCTGTTGCCCTCTTTTATAGGAGTGAAAGAGAAAGGAAGGAAGATTACAAAGGTGTAAATCCCTTTTCAT  
CCCTGGACCACAGAGGTGTAGCAGAGAATGGTTCCTGTAAAGACTGAAACTGAAAGTACAACATAGGTGCAATTTGT  
GACTAAGTATCACTGGTACAAAGAACTTAAGTATTGAAATATATCAATAAGTAATCTCTTGGGTGGTGCATACAGGAAT  
GCTTAAACCTCAGACCCAATTAAATGGCAAAACAATGACCTACATCTGTTTTTATGTATACACACACACACACAC  
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TATTTGTCCATAGTTGCCCTATCTTAGCACCTATTTTAAATGTGTTTTTGTATGACAGCTTTGTAAGGGTCAAATC  
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AAAAAGCAATGCAATTAATAAGTAGCATGTTGCTCCTGTGTGTGTATAGCACAGAGAAGCTTAGAAGAGTGACGATAT  
CTCCAGCTGTACACTTTTATTTTATATCTTCTGCTGCTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT  
CCTTAGAGTATTACATAACTATTTCTTAGCTCGCATGTGACCTTGCACTTCCCTCAGACCTTTTACCATTCTCTTTTAA  
ACAAATTTTTTAAATTTTCTAACAATCTCCAGTTTACAAGAACGGCTATAGCACAGTCCAAAGACCTTTTTTTTTTTTT  
TTTCTGAACCATTTGAAAGTAAATGCTAATCAAATGTTCTATCACCTATAAATACCTCTGTGTGTTTTTCTTACAAAC  
TAGGTCACTTCCCTGCAGGACCCCTCAGACAAGCATAAAAATCAGGAAAGTAACACTGATTACTTACTTACTTACTAT  
TCTTTTTTTTTTTTTTTTTTTGAGCAGATCTCAACAGTGGGCTTAAAAATCTTCACTAAACCATGTGTTGTGCTTTCTG  
GAACACAGGTAGAATAGATGTAGCATAATTTCTATTTTTTTTTTTTTTTTAGGTGGAGTCTTGTGCTGTTGCCAGGCT  
GGAGTGCAGCGGCACAATCTTGGCTCATTGCAACCTCCACTTCCGGGCTCAAGCAATCTCCTGCCTCAGCCTCCCAA  
ATAGCTGGGACGACAGGCACATGCCACCATGCCCTGGCTAATTTTTGTATTTTTTAGTAGAGATAAGGTTTACCATGTTG  
GCCAGGCTGGACTTGAGCTCCAGACCTCAGGTGATCCACTCACCTCAGCCTCCCAAAGTGCTAGGATTACAGGCATAAG  
CCACTGCACCCAGCCAGATGTAGCATAATCTTAAGGGCCCTAGGATTTTTGGAATGGTAAAGGAGCACTGGTTTCAAC  
TTCAAGTCACCCAGCTGTATTAGCCCTAACAGAGAGCCAGGCTGTCTTTCAAGCTTTGAAGCCAATATCGACTTCT  
CCCTTCTAGTTACAAATGTCTTAGATGGCATCTTCTCCATTAAAGGCTGTTTTTGTCTACATTGAAATCTGTTGTTT  
AATGACAGCACTTTCATTATGATCTTAGCTAGATTTCTTAGATAACTTGTCTGAGCTTCTACATTAACCTTGTCTGCTT  
CACCTTGCATTTTATGTTATGAAGACAGCCTCTTTCCTCAAACCTCATAAACCAGCCTCTGCTAGATTCCAGGTTTTT  
TTCTGTAGTTTCCCACTCCCTCAGCCTTTATAGAATTGAAGAGTTAGGACTTTTCTAGGTTAGGGTGGGGCTTAA  
AGAAATGTTGTGATTGGTTGGATCTTCTATCTAGGCCACTCAAACCTTCTCCCTATCAGCAACACAGCTGTTTCACTGC  
TTTATCATTTGTGTGCTCACTGGAGTGGCACTTATGCTCTTTTCAAGAACTTTTCTTGCATTACAACTTGGCTGTTT  
GGCACCAGAGGCTAGCTTGTGACTTCTCTCAGCTTTTGACCTGCCACCTTACTAAGGTCAATAGTTTCTTTTGATTT  
AAGGTGACAGATGTGTGACTTCTTCTTCACTTGAACACTTAGAGGCCATTGTAGGTTTATTAATGGCCCAATTTCAAT

Fig. 6.4



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ATTGTTGTGTCTGAGGGAATAGAGAGGCCCAAAGGGAGAGAGACAGGGGAACCACTGTGGTGGAGCAGTCAGA  
ACACACACATTGGTTGATTAAGTTTCACAGTCTTATGGGCATATTGTGTGGTTCCCCAAACACTTACAGTAGTAACAGC  
AAAGATTACTTATTGATCATAGGTCATAATAATAGATAAAAAATAAATTAATAAATTTGAAATATTCTGAATTACCAAAA  
TGTGATACAGAGACATGGTGTGAGCCCATGTTGTTGGAAAAATGGTGGTATAGCCTTGATTAACACAGGGTTGCCACA  
AACTTCAATTTGTAAAAACATAATACCTGCAAAGCACTAAAGTGAAGTGCAGTAAACAGAGGTTATACCTGTATAT  
TAATAGGTGACTCCAATAAAGACTTCGGTAATCTATAACAGGAGCCAATATCAAAATGGCAACTGCAAAGATAGTTCT  
CTCACTGAAGCTAACAAAAACATCTACAACTTTTCAGCTGAAAAATCAAAAAAGTTTGAGTTGTATAGGACATTCTAAC  
ACCAGGGAATGAGACATATCTTTTGTATGTAATAATAATGCAAGCCTGAAAGTCTTCAGTGAATCACAGAGTAATAA  
CTGTGACAGAGGCTTTCTGAATTACACATGGTGAATTTTCAAAAAACATAAATATGTGGATGATGTTTACATAAGTTTAT  
ATCTTCTTCCATACTATGTAATGTGGTTCTACAAATGTTTAGGTAATTAGGGTTTAGGAGGTATAAATTAATGATTTA  
TTATTCAATAATATGCTTGTGTTGGGACATTGTGGAATTTTACCTGCTATTGTTGTGAGGCCCGGAGCCAAATTTAATC  
TTATCTATTAGTGCACAATATATTTCTTAACCAGATTTTAAAGAAAATCTAGCCAAAGTTGTATGTGATTTCATGTTGTA  
TCTTCTCTGATGTTAGTTTTAATGCTTAAAGATAGTAGTAGCTATGATTGATGCCACTGAAACTTTTAGTTCACTTG  
ACTCCTCTATATAGCCCATGGATACCCAGTGTAGTACATTGATTTGGTTTATGACTATTGACACCATTTTCTGATTTA  
TGAAGGTTGACTTGTCCACAATCGGTGAGAGCTGGGATTTAATCCAGATATTCTGGCTACAATCCCAATAAGAGATGGG  
TCATTCTTATCCTTCATTTCATGTATTTCATTTCATATCATTTCATTTCATTTCATTTCATTTCATTTCATTTCATTTC  
CTATGATGTACCAGGTATTTTCTAGCCATGGGAGGCATATCAACAAATGAAAATGATAAGAACCCCTACCCCTGTGGAG  
CTTACATTCCAGTAGGGCAGAGGGGAAACAATGGCAGATAACATAAAGTAAATCTGTAGTATATTAAGTGGTAGTA  
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TAGGACCACAAGCATGACCACTATGCCTATCTAATTTTTTAATGTTTTTGTAGGGATGGGATTTGTCTTGTGTGCTCA  
GGCTGGTCTTAAGCTCCTGGCCTCAGGTGATCCTTCCATCTTGGCCTCCCAAAATGCTGAGATTATAGGTGTAAGCCAC  
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ACACACTGTCTCTTGTATGCTGGACGATCTCCTGTAGCTCACACACTCCCAGCATGCTCTCACATTACAATGTTTGTAAAT  
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ATTCCCCTCATAACTGCATGTCATACTGAGTGGCTTATAGTTCCCTCCTGTGGCCCTTGCAGATATTTCTTGCATTGC  
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TGCCTTCCAAAGACTAGTGGTAACTTGAATGGTTGGATATAGGACAGATAAACTGATAGAAGCAGTTTTTACCTCATTA  
GAGGGCTGGATATAAGTATGTCCAGGGACAAATATAGTAAAAAGAGAGCAATATTATAATATCTTTTAAAAA  
AAAGAGACAGTCTTGTGTGTTGGCCAGGCTGTGCCATTATGGCTCACTGTAACCTCAAACTCTGGGCTCAACAG  
TTCTCTCTCTCAGCTTCTGAAATAGCTAGGACTACTGGTGTGTGCCACCATGGCGCTAATTAATTTTTTTTTTTT

Fig. 6.5

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TTTTTTTTTTTTTTTTTTGTAGAAATGGGTTCTCACTATGTTGCCAGGCTGGTCTCAAATTCCTGGCCTCAAGTGATCC  
TCCCATCTCAGCATCTCAAAGTGCTGAGATTATAGGCGTGAGCCACTGTGCCTGGCTAGAA TCCTAACTTTTAGCAA  
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CTTTATTTAGTCACTGAGAGTCATGCAAGGTGGTGAGCCTGTGATAATGAGGAAATAATACAGAGGGGAGAATTCAGG  
GGAGTGATGACACGTTACGTTCTTGCTATTTTGGACTTATTAACAACGAGTGGTGGAGGAGGAGAAATGGCTGT  
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ATTTGGTCTATATATTTTGTATGCTGCTGGTTGATGGTTTGTATTTTCTATAGTGATTTGTGAGTGACAATGGATCTATA  
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CATAATGAGAAATGGAGACTTGAGTAGGGGAGACTCTGTAGAGAGATCTGTACATCTGTTCTCCCACCTTAAATTA  
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TTTTGAAATATACAAATATATTATTAATTGTCGTCACCGTGCTGTGCACTAGAGCATTAAAGACTTGATCCTCCTGTCT  
CACTGGATCTTTGTACCCTTTTGACCAACATCTATTTCCTGTATCCCCAGCCTGTGGTACCTACCATCTAAT  
CTCTGCTTCTATTGGCATATGTTTTTAAAGAGAGTTTATTTTGAATTTACTTACTAGCAAAATCTCTTGATTTTCTC  
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ACTTTCTTCCCTCTCTCTTCCCTCCCACTCCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT  
TGCTTCCCTTCTTCTGCTGCTTCCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT  
ATTGTTGATTGGCATGAGAAATGGCAAGAGCACAGACTCAGGAGCCTTTGAATTCATGACATGCCTTTTGTAGCTGTG  
TCACCTTAGGCAATTTATATAACATGTCTGTGCTTCAACATCTGTCCCAACATTTCTTTTCTCATCTGTAATGGGA

Fig. 6.6

ATAAATAGTAGTAAATATTTACCTCATAGAGTTTTTCTGGGGAATTAAACATGTGATTAAAAATACATGTGGGCTTAATA  
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TTTTGAGTGAATGGTGGTTAGGAGAAAGACTTTGGTGGTGGGAAGAAAGAAAGCATAAAACAAAGACTACTGAAATATA  
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GCCTTAAAGACTAATTTTAACTTAAAAATAGCGTGTATCTTGAATAAGAAAGACACTGGGTACTGTTACTGTAGTATG  
CTATTGACTTAGTAGCAAAATTTATCTTTCTCTGTATATAAATTCAGTTTTTATTGCTGCACATAAAATTTTATGATCT  
TATATTGTGATAGCTATGCTTTTTATTGTCAGATTTATGGATGTTATGACAGATTTTACTAAAGCTAGTGTTTTTATAA

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GCACTTAAGATTTGCTCCTGTTCTCTGTAGCAAAATACCTCCTACATCTGATGCAGATTTTGCTTTTAAAAATGGACC  
AAAGTATTCCTATGGTTTGGGTACACCTTACATTCCAAATACATAATGTAATGGGAGATTTTTAGTGTTCAGGATT  
CATTTCTCAGACTTTGGCATTCTGTTTAGAGCCAAGAATAATTTCTTCTTTCTGCTCTATTTTCACTCCGAGGTAGAGTTT  
ATTTTTCAGAATCTCTTTTCTGTGCTTGTCTTTGGAAGTATATGTGGTTGTTTTCTTTCTTTTTTTTTTAAGATTA  
CTTTTTTAAAAAATATAACATATTTATGGAGAGATCATAAACATAAGCACAATTAAGTGTGAAATGATGAATAGA  
TAATAGCAGTTATCCAAAGTGGTTGTCCCAATTAACGCTCCCATTAACAGTGTATGAGAACTCTTTTGTTTAATATCC  
TCACCGAACTTGCTATCGTCAGAGTTTGAAATGTTGTCAATGTGGTGGTTATTAATAGTGTCTGATTATGGTTTTATT  
TTGCATTTCCATGATTATTAATATGGCTGAACATTTTTTTCCATTTTTTTGACTTTTTCGTCTTTGTACAAAATTTGGT  
ATCAGATTGTCAAGCCTNCATACACACACACACATGCAGAGACACACACTCACCTCTGTGAGTTTTTTTTTTTTAATT  
TTGATTGTATTATATGTATAAATCAATTTGCAGAGAATTGCTGTCTACAATATTAGGTCCTTCTAGTCCATGACCATGGT  
TTACCTTTCCATTTTATTTGAAATAAATGAGAAAAAAGTTGCTTTTTTTCTGTGAAGATTTACAAATCTTTNGTTAGAT  
TTGTTCCCAAGTATTTGATACTTTAAAAAAGTATCAAATTTTCAAAGACTGTAGTACCCATTTCCTGTTTCAACAGT  
TACTCAGCTGATCAATGTTGACGTTTAATTTCTTTTGTAAATTTCTGGTGTGTGTAATTTCTTATAGTGTGTTGCTTC  
TGTATGGTATAAACTGATTTTTCTGAGTTTTGTTTACAGTGAACCTTGCTAGACTTGTAAATCTAAACATTTAGTA  
TGATTCTTTGGCATTGTCTACNTATTAGGAAAAAACAGCTTTTGCTTTTCCGTTCCATGGTAGACAGCATCTATATTG  
TCCTCAGTGATCCTTGCCCTCCTGGTATTTAATGCCTTGTGTAATTTCTGTCTTGGAGTGTGGGTGGAGCTAAAATGAC  
ACATTTCTAAATAATAGAATATATCATCAGTGATGGGTATCATTCTCAGATTAGATTCCAAAACCTGGCTTCCATC  
TTGCTTGTCTTCTTCTTATTCTCTCCCTGGCTTGCTCTGAGGAAAGCCAGCTGTCTGAGCTGCCCTTTTCCAG  
GGCCACCAGCAAGGAAGTGTCTCTGGCCAAACAGCCAGCGTGGACATGAAGCCTGCCAACAGCTTTACGAGTGAT  
CTTGGAAGTGATCTTCCCTTGGTCAAACCTTGAGTGACTCTACCCTAGCTGACACCTTGATTGGAGACTTTTGGAGAA  
ACTCTAAGCCAGAGGACTTAGCAAAGCTGTGCCTGGATTCTTATTACAGAACTGTGATATAATAAATGTTTATTGT  
TTTAACCCACTTAGTTGAAGAATAACTTGTATATAAAGTGACCTAGATACAATATACTTTCCAATCTCCATACCTTCCC  
TCCCTTCCCTTCCGTCCCTTCCCTCCCTTCTCTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTT  
CACTTTCTCTTCTTTCTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT  
TCTCAGGACTGGAGATCTTCAGTACAGCAGTTCCCTGGTTCCCATTTATCTGCTGTTTCACTTTGTACAGTTTCAGT  
AAGCCACGCTCAACCACAGTCAGAAAATATAAATGGAAATATCCAGAAATAAACAAGTTTAAATNGTGTGCTGTTC  
TTATAGCATGATGAAATCTTGGACTGTCTGCTTTGTGCCACTCTGAAAATGACTTATCCCTTTGTTTCATGGATCCATG  
CCTGGTAGACCAGGTACATTGTNAATGAGCAGTAATATTTTGAAGGAATCTTTTTTTTTTTTTTTTTTTTTTTTGTAGCA  
GCAGATCTCAATAGTGGGCTTAAAAATATTGAGTAAACTATGCTGTAAACAGATGTACTGTTATCCAGGCTTTGCAGAGC  
ACAGGCAGAGTAGATATAGTGTATTTTTTAAGGGCCCAAGGATTTTTTGAATGATAGATGAGCATTAGCTTCAGCTTCA  
GGTCACCAGCTGCTAACAGGAGAGTCAGCTTGTCTTGAAGTTTTGAAGCCAGGCATTGGCTTCTTATAGCTATGAA  
AGTCTTAGATGACATCTTCTGCCAATAGAACGCTGTTTATCTACAGTGAAAAGCTATTGTTTAGTGCAACCACCTTCA  
TCATTGATCTTAGCTAGATTTTCTGGATAACTGTCTGAGCTTCTCCAGCCTTTGTTGCTTTCACCTTGCACTTTTCAGT  
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CTCTCTCAGTCTTTATAGAATTGAGGAGTTAGGGCTTGTCTATAGTAGGCTTTGGCTTAAGGGAATATTGTCGCTGG  
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TAAACTTTCTTCTATCTTGGCTTTCAACATACCTTTCTCATTAAGCTCAATCATTTATAGCTTTTCGATTAAAGTGAG  
AGGCGTGCAACTCTGTTTACCTGAACAGAGGCCATTTGATGGGTTATTAATTGGCCTGACTTCAATATTGTTGTGCTC  
TGGGAATAGTGAAGCCCAAGGAGAGGAGAGTGTAGGGGGAATGGCTGGTGGGTAGAGCAGTCAGAACACACAACATTT  
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GGCAGACTGCTTGAAGCCAGGAGTTTGGAGCAGCCTGGCCAACTGGTGAATTTCTGTCACTACTAAAAATTTAAAAA  
TTAGCCAGGTGTGGTGGCGGCGCTTCTAGTCCAGCTACTCTGGAGGCTGAGGCAGGAATCACTTGAACCTGGGAG  
GCAGAGGTTGCAGTGAGCCAGATCACACCACTGCACCTCAGCCTGGGTGACAGAGTGAGACCCTGTATCAACAAAAACA  
AAACAAAACATATAGGTTTTCAGGCACCTATGGAGGTCTGACATATCCCTAGCAGATAAGGGGGAGTTACTGTTTAATGT  
GGAATAGAGTGGGATCGCAGCAGCATCATCTTGTCTCTAATTTCAAAGAGGAGGTTTTTAGCATTAGAGTATTTGTAG  
ATACCTTTTTTATAATTTTAAAAGAGTTATTTTCTATTTCTATTGTCAAAAAATTTTTATTGCTCGTTTTAACC  
ATAAGTTGATGTTGAATCTTAATCAACTACCTTCTTCTATTTGAGGATTTTTATAAGTTCTATCTTTTAGTCTATCAAT  
GGGGTTATATTACATTAATTGATTACTAATATTAAGCCACTTTGCATTCTAGGAGTGGCATAAATCTAATTATGATGTA

Fig. 6.8

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TTATCATTTGAATATATATATCTAGATTCTGTTGCTAATATTTAGTTTATAGTTCTTGTATCTATGTTTCATGAGTAAAA  
TTGGCCTGAAAAATTCCTTCTCTTACTATCTTTGTTGACTTTCTGATCAAGGTTATAAATTAGCTGAAAAATTAATCTCTC  
TTTTTCTATATATGGTTGGAATTATTTCTTTCTTGAATCTTGGGTGAAACTTAGTTAACTTTAAAAAATAAATAATGT  
AATTACACCGAAGTCAGAAAAATGGTTGTATAATTTCAAGTCTTTGAAATTTGTTGAGACTTGTTCATAGCCTAGTA  
TATGGTCAATTTTTGTAAATATTCTGTACACATGAAAAGAATATGAATTTTGCATTGATTACAGTTTTTTCTCTCTCT  
ATAAAATCTTGTTTAAATTTCTACAAATTTTACTGATTATTTTGCCTGCATATATATGTGTGTGTGTGTGTGTGTGT  
TGTGTGTGTGTGTGTGTGTGTGTGTATGTTTTTTTCCCCCTTTTCTTTTGTAGAGACAGGGTTTCACTCTGTTGCCTAAG  
CTGGAGTGCAGTGGTGCAGTCATAGCTCACAGCAGCCTTGGCCTCCTGGGCTCAAGTGATGCTCTCTGCTCAGCCTCCC  
AAGTAGCTAGGACTAATTATGCTCAGCTAATTTTATTCAAATTTTGTAGAGATTTTGTCTTGTCTGTGCTTGTACCCAG  
ACTGGTCCCAAACCTCTAGTCCTAAGTGATCTTCCCACCTTGGCTGCATTATATTTATTATTGAGAGAATTATTATAG  
ATTTCTGATTAAATTCATTTTGAATTTTCAATTTATCTGGTGGACTGACCTTTTATTATTATCATTATAAAATGTCATT  
CTTTATCATTAGTAATGTGTTTGTCTGTAGTCTTTCTGTATTATTTTAGGTGTATCTCTTATAAACAGCATGTAGTT  
TATGTTTTTAAGAAGCCAGCTTTCACAGTCTTTATTTTAAATTTAGTATTTAGACAGTTTATATTTAATACGATTACTCT  
AATTTTGGGTATAAATCTACTCTAATTTTGGGTAAAAGCACCTTTACTGATGCTTTCTAACATTATCTTCACTTTCTTG  
CCTTTGTTTGGATTTTGGAAATAATTTTCAATGTTTCTCTGCTAATTTTGAACCTTATGCAGTGTTCAGTCTTCTTG  
TTGGATTCCCTAGGAATTATGTCTTTTATACTAACATATCAAAGTTTAAAGTTAGTCAGTATCTTTTCCCTCATCCCGAG  
ACTATTTAGGGACCTTAATGCAGTAAGAACCCTTCCAATTAGATATTATTATAATGTATTATGCTTTATTGCTTTTT  
AACTTCATAATATATTGTTGTTATTTTATATAGTCTTTGTTTACTAGACTTACCCATGCATTTTACCACCTTTTCTCT  
TCTTAAAGTAAATCTTTAGAAATTTATCTGCAGTAAGGATGCTTTGTTTGTCTGAAAACCTTTTAAATTTTGGCCC  
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TTTGGGGTATGTTACTTTTTTTTAAAGTTGTGGTAAAATATATATGGCAGAAAATTTGTGTTTTAGCCATTCACTGTAC  
AATTTAGTGTAAGAATGCCATCATTGTTTAAAGATAGTTTAACTGTAAGTTATGGACTAAATATTGTCTCCCCAGAA  
AACTCATGTGTTGAAATCCTAACCCCAAAGTGATGTATTAGGAGATGAGGCCTTTGGGAGGTGATTAGGCCAAGAGA  
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ACAATAAGAAGTCAGTAGTCTACAACATGGAAGAGAGCCCTCACCAGAAATGGACCATGCTCACACCTTGATCTTGGAC  
TTCCAGCCTCCAGGATTATGAGAAATAAATTTCTATTATAAGCCACCCAGTGTATGTTGTTTGTATGAGTGTGAA  
CTGACTAATACACTGTGTATAGAATTTCTAGGTTGATAGTACTTTTTATTTCCATATACTGCAGTTATGCCTTTGTTAGCT  
GGCTTCCATTACTGCTGTTTTTAAAGTCAGCTGCCACTCTAGATATCACTTCTTTATCAATAATGTGCCCTTTCTTGGC  
AGGCTGCTTTTCTCTCTGTCTTTCGTGGTCTTTCATTGATGTTGCTATATCTTGGTGTGTACTTTTTAAATAATTATCC  
TGCTTGGGATTTCTTGAGCTTCTTGAATCAGAAGTTTGAGGTCTTTTGTGAGTTTAAATATTGCTTTTGTCAATCTC  
TCTCTGCTTTTGAATCTTTAATTAAATATATGTTAGCTCTCACTCTGCTCTTAATCTCAATGTATGTCTGTATTTN  
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TTGTCATTTTTCAACCTATACTTTAAAAAATTTAAGATCTCAAATTTCTTTTGTATTGTCAGCATTTTCTTGTCTTAA  
CCAGCTTTGCCAAATTCATTTCCAAATTTCTTTTGGTCTCTTTCTACAAATATATGCTAAAGATTTTCTATCGAATTTT  
CACAAATTTCCACAAAAGATACTGCAACAGTGATGAAAACAAAGTCTTTCTTTGATGCTCTATAGACATAAGCATGTAT  
TTGTTTTATTTTAGGTATGATTTTATAGTATTTTCAATTTTATGTATAATGCTTTTATTTTATGTTATGATAAGT  
CAAAATGTATAGGAGATCATTGCCCCAAGAGACTCTGGTAAGAAATTTATCAATGAATGTTCCATACAGAAAAT  
TTTGAAGAGTACTACAGCAATTTTCAAGGTTGAAGACACTCTGTATGAGCAGGGTGATGGAATTCAGCCATTTCTCA  
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TGTTATAGGAAATATAACTTTTAAAAAGCTGATGTTTGTGAGCTGCTGTGTACAGGAAGAAGAACTAAAAATGTCTT  
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GCTGTGGTAAATCATTACTTTTACCTCAAGAACAAAACCTATATATGTCAAAGACCTAGGAAAAGTAAGAGTTTTTA  
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AGTGAATACCTTGACATCACTGGGTCTTCCAACAGTTTGGCGTAAACATAAACTATGATTATTGAGTCTTAAAGAA  
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TGGGACAACAGGGTGCTAACCAATAAAAAAGTCACTTTTCACTTTGTTAGTGCATATTTATGTTGCAATGTAAAGTTT  
ATAATTAAGTAGTGAATCTAAGTTAAATTTCTGTTTACAGTTTGTGCAATTTTCACTTTGAGAAATTTGTTGAGTGAAT  
GTTTGTCTTCAATTTGAGGATGTAGAATAAATTTATATTTTCCATAAAATGTCACCAACAGTGCCTTATTTCACCAAAAA  
TAATTTATGTATGTGGCTAGGTCTACTCACTTTGTAATACCTCTTTTGGGGCTCTTCTGTGCAAGTGGAGACTTACA  
GTATCTAGAGCCTTTTCTAGGGAATATAACAAAAGCTTTTCTCCCTCTTCTAGCCCCACAAATTTTACATCTTGTCTG  
CAGCGTATCTTTCAAATAATAACAAGGTAGTCTTCTTGAAGTATTTTATAATGGATTTCTTCTATGTTTAAATAAGCA  
AATGAACTTAATTTTAAAAAACTAGAGGACTAAAAATTTTTCATGAGAACTAAGTAAAAATAAATTGATATTTG  
TATTAGTCCATTCTCATGGTACTATGAAGAAATACCTGAGACTGGGAGATTCTATAAGAGAAGAGGTTTAACTGACTCA

Fig. 6.9

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CAGTTCTGCATGGCTGGGGAGGCCTTAGGAACTTACAATCATGGTGGGAAGGTGAAGCAAACACATCCTTTTTCACAAG  
GCGACAGGAGAAGAAGCGCCGAGCAAAGGGGAAAGCCCCCTTATATAACCATCAGATCTTGTGAGAACCCACTATCAT  
GAGAACAGCATGGGGATAACTGCCCCCATGATTGATTACCTCCCACTGGGCTCCTCTCACGACACGTGGGAATTATGG  
GAACACAACTCAAGATGAGATTGGGTGGGGACAGCCAACCACATCAATATTTAAAATTGAAGTACTTCAGTTTTG  
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GGTCTGACAACAGACATTTTCACTGATAATTTACCAAGATAGCAGAAGTGTGTTGTTGCTAAAAATAGTTATGCAGGATA  
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TTTTTAAATCAGGTGTGTTTGGACTCAGAAGTTATTAATAATTCAGTCAAATGATGGGAGTGATGTTTGAAGATTAG  
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TTGCCACTGATTCTGCATAATTTTAAAAATTAAATTTGGGTTTTGTCCATATGCAAATTTGTCTAAAAATTTCCAT  
CTTTTGAAGCGTTTTGATACTTAGAAAAAAATTTAAGACTTTTCTAAATAGAATATACAAGATGGTACAATCTGAT  
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TTCTGAATTTTTTTCTACTTTCTACTTATCAAATGCCAAATATAATTATACACAATTACTGCTTAAAGCACAACAGGGT  
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CTGATTTAGCATATTTGACTATTTTCAAGTCACAATCCATCTAACAAGGACAGATGTTCCCACTAGAGGTGAGTCTT  
GTGTTGATAGTTATTGTATCATAAAGGAAAACTAGGGATTTTATGTTTAAAGTCCAGTATATTTGATATAGGTAGTAAG  
CCATTAATTGTGGAAGAAAGAACTTAAAGATTGGTCATCTTTATTGTAACAAAAATTACTGTGGGTAATATTTTGGGT  
CTTTTATTAACATATGTTTTCTCAAACCCAGAAAGCTTAACTGCTTGCTAAATACTCCCTAAAGGAACTTACCAA  
TGGTAGAAATGAACAATTTATCTAAACGTAGCAACAGATAATTTGGGATAAATGTCAGATTATTGGATTGAAACTGAAA  
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TCTTCTCTGCAATATGGGGACAACGTGCTTGTCTCTTTCCCTCAGATAAATCTTGTGTTTTATCTCAGACTAAGTGT  
TTGCTCTATAAACCAGAGAAATTTATAATAATGCGGAGATGGCAATCGGAGATAAAGCATATGTTTACAAGTAATGCCT  
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TAAATGACTTTTACTGCAGGTAGATGGTGTGATGGAAAGAGCAGTGTGTTAGCAGCAGTGGTTCTGCCACCAGATAGCTT  
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AAGACTCCTAGTCTTCTTCTGAACTAAATTTATACCAACGGCTCTTCTATTAGAATTTGTAGCACCATAATTAGT  
TAGAAATCAGAATATTTGGATTTTAACTTGTGGCAGTGGCAGTGGGCAAGTGACCTTGAGCAAGTACCAACCTCTCTG  
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CCACTATGATGTTGACATTTGCCCTCCACAGAGCTTATACAGGCTGCATTATGTTTCTTCATGAAGACTAGTTAGCTA  
AGCAAGTACTTAGAGCCCTTTCATTCAATTCAGTTTATTGTAGAGCCTTAATACTGCAGATGCTAGGCTGGGCAATGATG  
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GTTAGTGAAGGCTAATATTCAAGCTGAACCTGAGAAATGTGTCCACTAGTGAGGAAGGCAGGGCAGAGGCATTTTCT  
CAGAGGAAATAGCATGAAATAGGATCTGGTGACAACTAGAAATGACTTACCATTCCATGTGGTCCAGGTAATGCTAATA  
CTTCAATATAAAGTCTGACATGGCTCTCTGTAAAGGACTAGTAATTAAGGGGATTTCATGAAGTGTGGCCAGGCAGGCA  
GCGGACTTATTTTTAAGTAAGGAGTTTTTGGCACCTGTCAAATAACATCTCCGAGATGGCTTCTTTTACATATTTCCAG  
GTCAAGTTGATCCAGATCTCAATGCTCTTTGCAATTTTGGATTCTTAGTAGGTTGCTGCTACACCATGGTTTCTCTTTC  
CACATTTTCAAGGGCATTCTGCTAGTCTGTACTGATGAGTTTACAATGGTTGCAATAATTGTTGGTGTGATGAA  
CCTTCTTGCACCTTTATGTAAAGAGTGATCCTTTTATTGCCAGTTTCTATTTTTCCATCAACAGCCTGATATTCCATG  
CCTCTGGGTCATAGTGTTCATTTCATAACATTTAATGAATGTTAGAAGTGGCTCTGCAAATGCATTGCCTTAATCTT  
GTTGCTGTCAGTGAGATGCTTTTAAATATTTTCTCCACATGTGAACCTCAGTGTGTTTCTTTAGGTTTTCTTTAATTTCCA  
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TGCATTCACTGAACACATCCATCACAATAAATGGTCCTTTTCTCATTGTATTGACTTGCATTTATATAAACCAGACTT  
CCTTTTTATAGTATTATCAATGTTCATGGCAATTTTCACTAGCTTGGGAGCTGGGTATGAGAGTTGGCACAGAGCTGC  
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ATTGCTTTCTGATAGCTCAATTTATTTTAAACAGAGTCTACAATGATGTCATTTTAAATTTATTTTAAATTTTCAAT  
TATATTCTTTTAAATATAAGTTAATTTTTTCTATCACTGTGCTGTCATTGGTTTGCAGATTGTTGGGAAGAATATCAC  
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CTCTCAGAAAATATCTTTTCAAGTAGCTCTGTGTGCTCAGACCCCTGGAACCAAGTCAATCTGCTGCAACAGAGGCCTG  
TGCTTTCTATTGCCACCCATTTTCACTGCTCAGTGGCCTCTTCAGATATTAGTCTATTTCCATAATTCTAGTTGCAT  
ATGCTTTTTGTTTCTTACCTATGCCACTTAAATATTGTGACATTTTGGGAGCACTTAAACATTTACTTCAAACCTTCA

Fig. 6.10



CATCTTTGTGGTATTTTTCTATAGTAACCTTGTGGTTGTTAGAAATGCTGAAAATAAATGGTGCTGGGATAAAGCTGGGTAG  
TTAAATGTGGACATTGAAACCTGACCCCTTTCTTTACCATATAGCAAAATCAACTCAAGATGGATTAAGGATTTAA  
TATAAAACCTAAAACTATAAGAACTCTAGAGAAGAAACCCAGGAAATACCTTCTGGACATCAGACCTGGCAAAGGTTT  
TGATGAAGATTCTAAAAGCAATTGCACCAAAACCAAAATTGACAAGAGGGACCTAATTAAACAAAAGAGCTTCTGCAC  
AGCAAAAGAACTCTAAACAGATAAAACAGACAACCAACAGAAATAGGAGAAAATATTTGCAAACCTATGCATCTGACAAA  
GGTCAAATATCCAGAATCTATAAGTAACCTTAAACAAATCAACAAGCAAAAACCAACCCATTAAAGAGTAGGCAAAAGGAC  
ATGAACACTCATCAAAAGAAGAGAGATGAATGGATGAATGGCCAAATAGCATATAAAATGTCCACATCACTAACTCAT  
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GGAAAGCAGTTTGGCTATTTCTCAAAGAACTTAAACAGAACTACCATTCAATCCAGCAATCCCATTACTGGGTATATG  
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CAGCCATAAAAAAGATAGAGATCATGTCTCTGCTGGAAGATAGATGGAGCTGGAGGCCATTAAACCTAAGCAAATTA  
ATATGGGAGCAGAAAACCAAATACCACATGTCTCTCATAGTGGGAAGCTAAACATTGAGTACACATGGACACAAAAGG  
GAACAAGAGACACTGAGACCTAGTTGAGGGTGGAGGGTGGGAGGAGGGTGGAGGATGAGGATGAGGATGAGGATGAGGAT  
GCTCATTTTCTGGGTGATGAAGTAATCTGTACCCCAAACCTCTATGACATGCAGTTTACCCATAAAAACAAACCTGCACA  
TGTACCCCGCAACCTAAAATAAAAGTTGGAATGGCAAAAAAGAAATGCTAAAAATATATTATTTTATTATCCCAATA  
AGCTCTTACAGTAATTTTTTTTATCTGTGTGCTTTTTTGGGGGGTATATCTCCAGTATAATTTAAATAATCAGTTAAT  
TTTTGTTTTCTGGATTCACTCATCTTTACTACCATATTTAAATTTATTTTTCGAAGACATATTTTTTTTTCTCCACATTTTAGC  
ATCTCTGAAACTAGAACTGATCTTTTCAATTAAGGATGTATCACAGTTTAAATGGAAGCATTTTTTTTGTAGTGGTAGAA  
AAATTAGTTGTGCTTCTAGATTTAATAAAAGTGGCATTATTTTATTTTCCAAAGCAGATATAAGGAAGGTGGTTCA  
TTTTGTTTATGCTTTTGTAGTAAGCATTCTGAGTATTCTCTGAGCTTCTTTCTGCTCCCACTTTTTCTATGCAAGTCTAT  
CTTCTATCTTGTTCATTTATTTATTCTCTGCAATTAGTAGAAGTATTTAAACAGAAGGTAAAAACATTTGAAATTT  
TTTTACTCTNCTCTCCTAAATTTCTATGCATATGACTTTTATACCTGGTCAGGCCAAAGAATTTTTGTGTAGCAGGGGAT  
GGGAGAAGGAGAAATTAAGGAATAGTGTGGGATTAGGACTTTTTATAACAAGAAATGCAAGAAGAACCAGTGTTTCAGC  
TTTTAATTACTGTAGGATGTTTCTAATAATGCTGGCAATGAGGAAAGCTTGACTTTGTGAGGAGAAGGAAGGATTTCT  
AAATTTCTTTAAAGCTCAGATATGTAGTAAAAGAAAATTTCTAGAATTTCTTCCAGAGTCTCAAGGTAAGGTTTATC  
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TAAGTCTCTTGTCTTTCCCTTCTTAGAGCTGTGTCTCAAATGGGTGGAATGTAGAAACATCAGGAAGGCACTGGAGGA  
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GACTGAGGATGTGCTCCTGGCTCTCCAGGGCTGCGCTTGGTGTGACAGGGTATTGTGTGGGTTTCCATGCTGAGGCTT  
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CTTTAAGACTAGAGGCCAGGATCAGTTTCTAGTAGTGTTGTGTCAGCATTTTCCACCCCAAACCAAGTGTGAACAGTTTT  
ACTCATTTGTAACCTGGTCCAGGGAGCTGAGCACTTACCTACCTGCAGTAGAATACAGTGGAGATTACAGAGAACATCTCT  
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GAGAATGGGGATGCTGCTGGGCAACCTCTGGGAGTGGCAGTTTTCAGTTACCATGGCTGGTGTGAAGGAGGTGTGCTG  
AGGGTTTGGGGGTACCAAGTGTAGGCAAGAGGCTAGAGTGTGACATGAGATGTGAGGTTGGGAGGTGAGGAGGTGATCAG  
GAGTCTGGCCTACGCTGTAAGGTGGCCAAGGGACTGCACCTTCTGGACTAATGGCTGAGGCAGAACACCAGTGGAGTCT  
CTCACCCACACCGCTGGCCCACTGTGCAGCAGCAAGAAACAGCAGAAGAGTCAATTTCTCCGGCATTGCCCCCTCCAG  
CACCTTTAACTGTGAGAGTTTAGTATCATACACATATAAAGGAGAAATGCTTAAAGGAATTTCTGTTTATTATCAGAGA  
GCATGTATTGAATGGTGAATTTGGAACCTGAAAGGTGGTAAGTTGATAACTGGCACAATAAATCTTTATTAGAGAGAC  
TAAATCATCCAAAAGAAATTTAAACAGTGGCACTCTTTTAAATGGGCTTCCAAATGAACAGAGTTGTTGGATTAAACCAAT  
GCATTTCTGATCTCCATCAAAATTTAGATATAGATTCATGCTCCACTGTGGTGTGACTCATAGCCAGTTGGCTGTGCT  
CTAGTATACCAATTGTACCTATGTTTTCATACCAATTTGGGAGCTGTGTTTATTCTCCATATGTTTATACCTAGTTGATTA  
AGTATCTATTTATTCCAAGTCTATTTATAGTAGTTGTATTAGTTTTCTATTTTCTAACATATTTTATTCTATTTTAT  
AACAGATAATCTGAAAACCTTAGTGACTTAAACAACAATAACAACAGTGGACATTTAGTCTGCCACAGTTTCTGCAAAAT  
CTGAAATCTGTTTGCATAATCTGGGTAGTTCTGACTTGGGGGTTTCTCAGATGTTGCATTTCGAGTTACTGGATGGGC  
CTGCAGTCACTGAAGACTTGACTGCAGTTGTAGGAAGGAATTCAAAATGGCTCACTCATGTGGTTGACAAGCTGATG  
AGGGCTGTTGCCAGGAGCGTCAGTTTGTGGCCATGGAGATATCTCCACTAACTGAGTACCCTCATGACATGACAGTTGG  
CTTACCCCAAGTTGGGTGATCTTAAAGATAGTGAGGCAGAAAGCCATGGCTTTTTATAACAGTCTCAAGAAGTCAACGA  
AGTGTCAATTTGCAATATCTGTGTTGGTACACAGCTCACCTTTTTAATGTAGAAGGACACACAAAAGTGTAAAT  
ACCAGGAGAGGGCCACTGGAAGCTGTCTTGGCTACTGGCTACCACTAACTAATATCTGTTATGTTAATCACAAAATTTAAT  
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AGTATAAAAAATCTGTTGTATAAAATGAGGCTAAGACAACCTAAGAAATTGAGGATATTTTGTAAAAATCTGGATGGAT  
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GGGAGAAATTATCTTGTCTTCTAAAGAGTAATGAAGTTAATGTCAATCTTGAGAGATAACATTTGATTGAAGAACAA  
GTCTACAATACCACATCATAAGCTATTATCTACAAAAATGGTAATAAGAGCATAGGTATGAGGTTTTAATAAATAATAT  
TTTACAACAATCAGTAATATTTGTCAGCAATGCAACTAGAGTAAAAAATTGCTGTTATTGGCAAATTGACAAAAGAGGTT  
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ACCAAAATCACCTTAAAATTTAGTAGTTTAAATAAATGGTTTATACAACAATCATATTATTATCTCTCGGGCTCTCTGT  
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CTGCTTATCTATTGGAATTCAGCTGGTCTTGCTAAAGCACATACACATGGCTCTTCCATGTGACCTCTGTGTTTGT  
GGGCTTCTTTACAGCAGGGTGGGTGCCTTACAAGATAAATCACTGAGAAAACCAAGAAAGCTGTATTGCCATTT  
AGGACCTTGCTTTGGAAGTCTCAGAGCTTTACTCCCTTTGTAGGCTCCATCTTGCTCAGATTGAGGTGGAGGGACCAT  
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GCAGTCTTGGAACCTGCAATCTGTGCACATACACACACACACTGGGAACAATCTTACTTCTAAGTATGAACC  
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TGAATATGAGAAGATGAGTTTATAGAATTGATAAAATCTCGTTGATATGGTTGGCTCTGTGTGCCCATCCAAATC  
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CTCCTGCTCCACCATGGTAAGTCTAGCTTCTGCTTCCCTTCCGCTTCTATCATGACTGTAAGTTTCTTGAGGCTCCAG  
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AGGTGCTCTCAGATGGAGATGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT  
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CAGACAGTGGGCGCAGGTGAGTGGGTGCAGCACACCGTGTGCGAGCTGAAGCAGGGTGAAGGCTTACTTCTGGGAA  
GTGGAAGGGGTGAGGAGTTCCTTTCTAGTCAAGAAAGGGGTGACAGATGGCACCTGGAAAAGCGGGTCACTTCCCA  
CCCCAATACAGTGTCTTTTCAAGTGGCTTAAAAAATGGCACACAGGAGATTATATCCCGCACCTGGCTCGGAGGGTCC  
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ACTGCTCTCTCAAGTGGGTCCCTGACCCCTGACCCCGAGCAGCTAACTGGGAGGTACTCCCGAGCAGGGGCGAGCTG  
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TCACCATCATCAAAAGACCAAAAGTAGATAAAACCACAAAGATGGGGAAAAAACAGAGCAGAAAAACAGGAACTCTAAA  
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CAGTGATGGAAGATGAAATAATGAAATGAAGTGAAGGGAAGTTTGGAGAAAAAGAATAAAAAAGAAATGAACAAAGC  
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AATGAAGGAGAAAATGTTAACGGCAGCCAGAGAGAAAGTTGGGTTACCCCAAAGGGAAGCCATCAGACTAACAGCA  
GATCTCTCGGCAGAACTCTACAAGCCAGAAGAGTGGGGACAAATATCAACATTCTTAAAGAAAGAAATTTTCAAC  
CCAGAAATTCATATCCAGCCAACTAAGCTTCATAAGTGAAGGAGAAATAAAATACTTTACAGACAAGCAAAATGCTGAG  
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CCACTGCAAAATCATGCCAAATTTGTAAGAGCATCAAGGCTAGGAAGAACTGCATCACTAACAAGCAAAATAACAG  
CTAACATCATAATGACAGGATCGAATTCACACATAACAATATTAACCTTAAATGGAATGGACTAAATGTCTCAATTA  
AAGACACAGACTGGCAAATTTGATAAAGAGTCAAGATCATAGTGTGCTGTATTGAGGAGACCCATCTCATGTGCAAA  
GACACAGTAGGCTCAAATAAAGGGATGGAGGAAGTCTACCAAGCAAAATGGAAGCAAAAGCAAAAGCAAGAGTTGCA  
TCTTAGTCTCTGATAAAACAGACTTTAAACCAACAAGATCAGAAGAGACAAAGAAGGCCATTACATAATGTCAAAGGG  
ATCAATTCTACCAAGAGAGCTAATATCTTAAATATATATGCACCAATACAGGAGCAGCCAGATTCAATGAAGTC  
CTGAGTGACCTACAAAGAGACTTAGACTCCACACAATAAATGGGAGACTTTAACACCCCACTGTCAACATTAGACA  
GATCCATGAGACAGAAAATTAACAAGGATGTCCAGGAATTGAATCAGCTCTGCACCAAGCGGACCCAATAGACATCTA

Fig. 6.12



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CAGAACTCTCCACCCCAAATCAAAAGAATATACATTTTTTTTTTTCAGCACCACACCACACCTATTCCAAAATTGACCAC  
ATAGTTGGAAGTAAAGCTCTCCTCAGCAAATGTAAAAGATCAGAAATTATAACAAACTGTCTCTCAGACCACAGTGCAA  
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AATCTCTGTGACACATTCAAAGCAGTGTGTAGAGGGAAATTTATAGCACTAAATGCCACAAAGAGAAAGCAGGAAAGAT  
CCAAAATTTACACCCCTAACATCACAATTTAAAGAAGCTAGAAAAGCAAGAGCAAAACACATTCAAAGCTAGCAGAAGGCA  
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ATGCAATAAAAAATGATAAAGGGGATATCACCACCAATCCACATAAATACAAATTACCATCAGAGGATACTACAAACA  
CCTCTACACAAATAAAGTAGAAAATCTAGAAGAAATGGATAAATTCCTGGACACATACACCTCCCAAGACTAAACCAG  
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GTCCAGGACCAGATGAATTCACAGCCGAATTTACCAAGGATGACAGGAGAACTGGTACCATTCTCTGAAACTATT  
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AAAAGGCCTTTGATAGAATTCAACAACCTTCATGCTAAAAACTCTCAATAAATTAGGTATTGATGGGACGTATCTCAA  
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CAAAACAGAGATATAGATCAATGGAACAGAACAGAGCCCTCAGAAATAATGCCACATATCTACAAGTATCTGATCTTTG  
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GGCCATCAGAGAAATGCAAAATCAAAACCAATGAGATACCATCTCACACCAGTTAGAATGGCGATCATTAAAAAGTCA  
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GGCTAAAAGGGGCCAAGGTATAGCTTGGGCTGTTTCTTCAGAGAGTGAAGCTCCAAGCCTTGGTGGCTTCCAAGTGTA  
TTGGGCTGTGAGTGTGCAAAAGGTAAGCGTTGAGGTTTGGGAACCTTTGCCTAGATTTAGAGGATGTATGGAACCTC  
CTGGATGTCCAGGCAGAGTGTGCTGCAGGGGTGGAGCCCTCATGGAGACCTCTTCTAGGGCAGTGCAGAGGGGAAAT  
GGGAAATGTGGGGTTGGAGCCCCACACAGAGTCCCTCTGGGGCACTGCCTAATGGAGCTGTGAGAACGGGGCCACCA

Fig. 6.13

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TACTTCAGACCTCAGAATGGCAGATCCACTGACAGCTGCTCTGTGTGCCTGGAAAAGCTGTAGGCACTCAACACCAGC  
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TCTCTTCAAAGAGTCTCATCTTTGTCTCTCATAAAGATGAGACTTTGGACCTACACTTTTGAGTTAATGCTAGAATGA  
GTTAAGACTGTTGGGAAGGCATAATTGTGTTTTGAAATATAAGAAGGATATGTGATTTGGGAGGGGCCAGGACAGAATT  
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GGTAATTAGATCATGGGGGCTGATTTCCCCCTTGCCATTCTCATGAGACCTGGTTGTTTTAAAGTATGTAGCACTTCCC  
CCTTTGCTCACTCTCTGCTCCACTATGGTAAGACATGCTTGCTTCCCCCTTACCTCTGCCATGATTATAAGTTTCCTG  
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GCAATCTCATTACTGGGTATATACCCAAAGGATTCAATTAATCTTACTATAAAGACACATGCATACGTATGTTATTG  
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GTCCCTTCTTCTTTGGCAATGCCTCTTAAATCACAGTTGTGTTGGTTGAACAGCTCTATGAATATATGAAAAGCCACT  
GAATGTGTCATTAATTTGGGTGAGTTGTCATGGTATGTAATAACATCTTAATAAGCTGACACCCCAAGAAAATCACAG  
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AGTATTAATTAGCATCATTGCTTGTTCCAAATGCCTTTTGTCTGTTTCAAACCTCAAATCTACCATTAAAGGAAAAA  
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AAATCTTTTACATTAAGCATTACTGACATTATAGAAGTGTCTTTGGATTCTTTTATTAGTTAAGGTGAGCATATTAC  
GTTTGTAAATTTAAGTCGAGTACATAAATATAAAGAGAGATTTTATTCTTTCAAGTTTCAAGTACAGAGATAGT  
CTCTTTGCTTCGATATAGGGTACACTAGAGAGGGTTGTACACCTCAGTTTCTGCTCCCACTCTCCCAAGCAGGGAGCA  
TAGAACCTTGACCTTTAGAACATTCCACTTAATGGTGCAATAACCTGTATGCAGTGTAAAGCTGGTAGGAGAAATCAAGT  
AAGAAGAGGAAAGAAATGGCCATAAAATGCCACACATTTCTCTTCCGCCCCACCCGCCCCCTCCAATCATAAGTGATG

Fig. 6.14

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CTCCATTGGGCACTCTTTACCTCAACTTAAGTTTCACCTTTTTCTGGTTTGGAAAGGGAAACTACGTTTTTTTTGTTTT  
GAGACGGAGTCTTGCTGTGTACCCAGGCTGGAGTGCACCTGGTGCATCTCGGCTCACTGCATCTCCCTCCCAGGTTT  
AAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGTGCCCCACCACACCCGGTTAATTTTTGTATTT  
TTAGTAGAGACGGGATTTCACCATGTTGGCCAGGATGGTCACGAACCTCTGACCTAAGGTGATCTGCCCTCCTTGGCCT  
CCCAAAGTACTGGGATTACAGGCGTGAGCCACCGCGCCCATCCAACTACATTTTTAAAAAAGTTAAAAAGCAAAAC  
GAAACAAAAGTTGGGAAGGCAAGTGTCTGTTCATTTTCATTAGGAGGCTGACTCTCTAGGAACCTCTCCTGGTGCCTG  
GGACCATTGTTACAAGGTTGAGAAGTGTGAGTGTACGGAAACCCAGGGGAAACATTTTTCTCATTACTTCTCAAAAT  
AGAGGTAGGAATAAGGCATGGAATAATAAATGAGTAAATATAATCCTTGTTACCTTGGAAATAATTGGTGATAAAGTG  
CAGGTGCATCTTATTTTCATTCTATCAAGTCGTTTTCTAATTGGATGTTCTTGAAACAGTGGCTCATTGCTTGTACTTG  
TTCACTCCTATTTCTTGCTACTATCTGTTTTGGGGCAGGGCAACTTACCCTGGGGAACGATCAAATGTTTAGGCA  
AATATATCCTGGTGTTATAAGCTCATTAAATTTCTTGTCATTTCTTGCACTGTGCTGGGAAGTGCTGTTTGTGGCCGT  
TTTTGCAATGTAGAACCTCTCTTTTGTGAGAGCCATGGAAGTTCCTTATTTGATAATTAGTCTCTTGCTTTTAGGCAGTG  
CCATTAAAGACTTCATATAAGCTGCCAACACTTTGTGGATTTGTGAGACCCCGTAAGCTTCTATAGCTACTATTGCAA  
GTAAATTTTTCAGATGCTTCTGAAGTCTTACCCACTTATCTTGGCGTAGAGGTTCTCAAGCTTCAGCACTGGAGGATCA  
CCTGGAATTGCTCGTTAAGACACACATTGCTGGGATCCACCTCCAGGGTGTGAGAGTCAAGTCTGGGGTGAAGCCTGAG  
AATGTGCATGTCTAACCACTTCCCAGGTGATGCTGATGTTGCTGGTTTTGAGACTATATTTTGGAGATTAGAAGTGCCT  
TGGATTAAGAGCTGACCTGCGATCTACAGCTCAAATAGTGAAGTAAACATCCTAAAGAAATGGAAGAACAGTGCAGT  
GAGTGATTGAATTACTATTTGTTCAATATCACAGAGAGCATAGTATTACATAAGGGCTTTGGGGAATATTTTAGGTAAG  
TATATAAATCTTGGCCACCTAGGATGTTTATAGTAATATAAGACAGTATTTTTGTTTTTCCAAGTAATTTAATGATC  
CTGTAGATCCTCTTCTTTTTTGTATATAATATCAATCTAATAGTATTTCTTGTTTAATATAAAATGAAATCTTATTTTAC  
ACAAGCAGCAAGCAGCTATTTTTTTCAGATTTTTCCCTTATAATCTAAGGGAAAGTTATTTTAAATAGAAAAGATGTGG  
GCTTCAAAAAAGCTTTGCAATATGTTGCAATAATACGAATGATTTTCAGTGTGAAATCCATTTGTGAAAGCAGGCTT  
TGCTTATATTTTGGGTCCTGCCCTTCTATAAAATGCTCAGATTTGCTTTTATTAAGATCATACACTCAGTGACCTGAGGA  
CCAGATGGAGGTTATAAGCAGCTCTTTAAGGCTTCAGAGCTTAGCCTAGAGAGTCAAACAGCTCTTTGAACTGGCGTCT  
CAGCTCTGTCAATTTAGGCAAATGTTTATTTCTGCAAGAACCAGCCTTAGGCTTTGTTGATCTACGTATGTATATTT  
GTTTTTTATTTATTTGCATTATTTTCATTCTGTTTTCTTTGACTTTAATTTGCTAGTTTTCTTTGAAGCTTGTGAG  
ATAAATGCTTAGATCATTGATTATCAAAATGTGTCTATTCTAATATATATAATATATATATATAGATAAGGCTATACAT  
TTTTCCCTTAGCACAGCTTTAGTAGCCTCCAACAAATTTTGTAGTGTCTGTGTTTTTATTATAAATCAGTTTGAATATA  
TATTCTAATTTTATTATGATTTCTTGAGCCTATGGATTATATAGAAATATATTTCTTAAATTTGAACATATGGGGATT  
ATTTGATGTCTCTAAGCCGAGATTTCTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT  
ACATGTGCACAAATGTGCAGGTTTGTATACATATGATACATGTGCCATGATGGTGTCTGACCCATTAACCTGTCATTT  
AGCATTAGGTATATCTCCTAATGCTATCCCTCCTCTCTCCCCCTACGCCACAACACTCCCTGGTGTGTGATGTTCCCT  
TCCTGTGTCCATGTGTTCTCATGTTCCAGTTCACCTATGAGTGAGAACATGCGGTGTTTGGTTTTTGTCTTGTCAA  
TAGTTGTCTGAGATGATGTTTCCAGCTTCATCCATGTCTCACAAGGACATGAACCTCATCTTTTATGGCTGTA  
TAGTATTCATGGTGTATAGTATTTCCATGGTGTATATGTGCCACATTTTCTTAATCCAGTCTATCACTTTTGGACATTT  
GGCTTGGTTCGAAGTCTTTGCTATTGTGAATAGTGTGCAATAAACATATGTGTGCATGTGCTTTATAGCAGCATGAT  
TTATAATCCTTTGGGTATATACCCAGTAATGGGATGGCTGGGTCAAATGGCATTCTAGTCTAGATCCTTAAGGAATC  
GCCACACTGATTTCCACAATGGTTGAAGTAGTTTACAGTCCCACCAACAGTGTGAAAGTGTCTTATTTCTCCACATCC  
TCTCCAGCACCTGTTGTTTCTGACTTTTTAATGATTGCCATTTCTAAGTGTGTGAGATGGTATCTCATTGTGGTTTTG  
ATTTGCATTCTCTGATGGCCAGTGTGAGCATTTTTCTATGTTGTTTTTGGCTGCATAAATGTCTTCTTTTGTGAGA  
AGTGTCTGTGAGATGCTTCTGCCCCACTTCTGAGGTTGTTTTGTTTTTCTGTAAATTTGTTTGAAGTTCATTGTA  
GATTGTGGATATTAGCCCTTTGTGAGATGAGTGGGTTGCAAAATTTTCTCCATTCAGTAGGTGCTGCTGATCTG  
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GGTGTTTTAGACATGACGCTTGTGCCATGCTATGCTGAAATGGTATTGCTAGGTTTTCTTCTAGGGCTTTTATGG  
TTTTAGGTCTAGCATTTAAGTCTTTAATCCATCTTGAATTAATTTATGTGTAAGGTGTAAGGAAGGCATCCAGTTTCAG  
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GTTTTGTCAAAGATCAGAAAGTTGTAGATATGACAGCATTTTCTGAGGGCTCTGTTCTGTTCCATTGGTCTATATCTC  
TGTTTTGTACCAATACCATGCTATTTTGGTTACTGTAGCCTTGTAGTATAGTTTGAAGTCAGGTAGCATGATGCTTCC  
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TCCATTTCTGTGAGGAAAGTCATTGGTAGCTCGATGGGATGGCATTGAATCTATAAATTACCTTCGGCAGTGTGGCCG  
TTTTACGATATCGATTCTTCCACCCATGAGCATGGAATGTTCTTCCATTTGTTGTATCCTCTTTTATTTTCATTGAG  
CAGTGGTTGTAGTTCTCCTTGAAGAGTCTTTCATATCCCTGTGAGTTGAATCCTAGGTATTTTATTCTCTTTGAA  
GCAATTTGTAATGGGAGTTCACTGATGATTTGGCTCTCCGTTTGTATTGGTGATAAGAATGCTGTGATTTTTGCAC  
ATTGATTTGTATCCTGAGACTTTTCTGAAGTGTGTTTATGAGCTTAAGGAGATTTTGGTCTGAGACGATGGGGTTTTCT  
AGATATACAATCATGTCTGCTAAGAGGACAATTTGACTTCTCTTTTCTAATTGAATGCCCTTTATTTCTTCT  
CCTGCCGTGATTGCCATGGCTAGAACTTCAACACTATGTTGAATAGGAGTGTGAGAGAGGCTCCCTCTGCTTGTG  
CCAGTTTTCAAAGGAATGCTTCCAGTTTTTGTCCATTCCGTATGATATTGGCTGTGGGTTTTGTATACATAGCTCTTA  
TTATTTTGAATACGTCCTCATCAATACCTAATTTATTGAGAGTTTTTAGCATGAAGGGTGTGAAATCTGTCAAAGGC  
CTTTTCTGCATCTATTGAGATAATCATGTGGTTTTTGTCTTTGATTCTGTTTATATGCTGGATTACGTTTATTGATTTT  
CATATGTTGAACCAGCCTTGATCCCAGGGATGAAGCCCACTTGATCATGGTGGATAAGCTTTTGTGATGTGCTGCTTGA

Fig. 6.15

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TTCCGGTTTGCCAGCATTTTATTGAGGATTTTGCATCAGTGTTTCATCAAGGATATTGGTGTAAAAATCTCTTTTTTGT  
TGTGTCTCTGCCAGGCTTTGGTATCAGGATGATGCTGGCCCTCAAAAATGAGTTAGGGAGGATGCCCTCTTTTTCTATT  
GATTGGAATATTTTTCAGAAAGGAATGGTACCAGCTCCTCTGTACCTCTGGTAGAATTCCGGCTGTGAATGCGTCTGGTC  
CTGGACTTTTTTGGTTGGTAAGCTATTATTATTGCTCCTCAATATCAGAGTCTGTTTTTGGTCTTTTTCAGAGATTCAACT  
TCTCTCTGATTTAGTCTTGGGAGGGTGTATGTGTCCAGGAATTTATCCATTTTTTCTAGATTCTCTAGTTTATTGTG  
TAGAGGTGTTTATAGTATTCTCTGATGGTAGTTTGTATTATGTGGGATCGGTGGTGTATATCCCTTTGTCTATTTTTTA  
TTGCATCTATTTGATTCTTCTCTCTTTCTCTTTATTAGTCTTGCTAGCGGTCTATCAATTTGTTGATCTTTTCAAAA  
AACCAGCCTCTGGATTCAATTGATTTTTTGAAGGGTTTTTGTGTGCTATTTCTTTCAGTTCTGCTCTGATCTTAGTTA  
TTCTTTCCTTCTGCTAGCTTTTGAATGTGTTTGTCTTCTGCTTCTCTAGTTCTTTTAAATTGTGATGTTAGGGTGTCAAT  
TTTAGATCTTTTCTGCTTTCTCTTGTGGGCATTTAGTGCTATAAATTTCCCTCTACACACTGCTTTGAATGTGTCAAG  
AGATTCTGGTATGTTGTGTCTTTGTCTTTTGTCTTTTCAAGAACATCTTTATTTCTGCCTTCATTTTGTATGTACTC  
AGTAGTCATTACAGGAGCAGGTTGTTTTCAGTTTCCATGTAGTTGAGCGGTTTTGGGTGAGTTTCTTAATCCTGAGTTCTC  
TTTGATTGCACTGCGGTCTGAGAGACAGTTTGTCTATAATTTCTGTTCTTTTACATTTGCTGAGGAGAGCTTTACTTCCA  
ACTATGTGGTCAATTTTGAATAGGTGTGATGTGGTCTGAGAAGAATGTATATTCTTTGATTGGGGTGGAGAGTTTCT  
TGATAGTGTCTATTAGGTCTGCTTGGTGCAGAGCTGAGTTTCACTTCTGCGGTATCCTTGTAACTTTCTGTCTCATGGA  
TGTCTCTAATGTTGACAGTGGGGTGTAAAGTCTCCCATTTATTGTGTGGGAGTCTTAGTCTGTTTGTAGGTCTCTA  
AGGACTTGTTTTATGAATCTGGGTGCTCCTGTATTGGGTGCATATATTTAGGATAGTTAGCTTTTCTGTTGAATTG  
ATCCCTTTTACCATTATGTAATGGCCTTCTTTGTCTTTTGGTCTTTTGGTGTAAAGTCTGTTTATCAGAGACTAG  
GGTTGCAACCTGTGACTGTTTGTGTTTCCATGTGCTTGGTAGATCTTCTCCATCCCTTATTTTGGAGCTATGTGTGT  
CTCTGCACATGAGATGGGTCTCCTGAATACAGCACACTGATGGGTCTTGAATCTTTTCCAATTTGCGAGTCTGTCT  
TTTAATTGGAGCACTTAGCCCATTTACATTTAAGGTTAATATTGTTATGTGTGAATTTGATCCTATCATTATGATGTCA  
CCTGGTTATTTTGTCTGTTAGTTGATGCACTTTCTTCTAGCCTTGATGGTCTTTACAATTTGGCATGTTTGTGAGTG  
GCTGGTACCGGTTGTTCCCTTCCATGTTTAGTGCTTCTTCCAGGAGCTCTTTTAGGGCAGGAGTGGTGGTGAACAAATC  
TCTCAGCATTTGCTTATATGTAAGTATTTTATTCTCTTCACTTATGAAGCTTAGTTTGGCTGGATATGAATTTCTG  
GGTTGAAATCCTTTTCTTAAAGATGTTCAATATTGGCCCCACTCTCTTGGGTTGTAGAGTTTCTGCAGAGATAT  
CCGCTATTAGTCTGATGGGCTTCCCTTTGTGGGTAAACCGATGTTTGTCTCTGGCTACCTTAACTTTTCTCTCAT  
TTCAACTTTTGGTGAATCTGACAACTATGTGTCTTGGAGTTGCTCTTCTCGAGGAGTATCTTTTGGCATTCTGTAT  
TCCTGAATTTGAATGTTGGCCTGCCTTGTGATTTGGGAAGTTCTCTGGATAATATTCTGCAGAGTGTCTTCCAAT  
TGGTTCCATTCTCCCCGTCATTTTCCAGGTACACCAATGAGACGTAGATTGGTCTTTTACATAGTCTCATATTTCTTG  
GAGGCTTTGTTTCACTTTCTTTTACTCTTTTCTCTAACTTCTCAATTCATTTCATTTCATCTTCCATTACTGA  
TACCTTTTCTTCCAGTTGATCGAATCGGCTACTGAAGCTTGTGGATGCATCACTTAGTTCTCGTGCCATGGTTTTCAGC  
TCCATCAGTTTCAATTAAGGACTTTTCTACACTGTTTATTCTAGCCATTCTGCTAATCTGTTTTCAAGGTTTTTAG  
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GTACAGATGGGGTTTTGTTGTGGATGTCCTTTCTGTTTGTAGTTTTCTTTTAAACAGTGGAGCCCTCAGCGGCAGG  
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TGCTGAACAGCGAATATTCTGAAACAGCAATATTGCTGTCTGTTAGTTCTCTGGAAGCCTCATCTCAGGTGGGTACC  
TGGCCATGTGAGGTGTGAGTCTGTCCCTACTTGGGGGTGCTCCAGTTAGGCTACTTGGGTGTCAGGGACCCACTTGA  
GGATGCAGTCTGTCCGTTCTCAGATCTCAGACTCCTTGTCTGGGAGAACCCTACTCTCTCAAAGCTGTGAGACGGGA  
CATTTAAGTCTGAGAGGTTTCTGCTGCCCTTTGTTTGGCTATGCCCTGCCCCAGAGTTGGAGTCTATAGACGAGGC  
AGGCCTCCTTGAGCTGAGATGGGCTCCACCCAGTTCCAGCTTCCAGCCACTTTGTTTACCTACTCAAGCCTCAGCAAT  
GGTGGGGCGCCCTCCCCAACCTTGTCTGCTGCCCTGTCAGTTTCATCTCAGACTGCTGTGCTAGCAATGAGCGAGGCTC  
CGTGGGCGTGGGACTCTCCGAGCCAGGCNCGGATATAATCTCTGATATGCCGTTTGCTAAGACCAATTGGAAAAGTGC  
AGTATTAGAGTCGGAGTGACCTGATTTTCCAGGTGCCGTCTGTCAAGCTTCCGTTGGCTAGGAAAGGGAATTCCTTGA  
CCCCTTGTGCTTGCAGGTGAGGCGATGCCTCACCTGCTTCACTCAGCTCAGACTCGGTGCACTGCACCCACTGTCTGTCAC  
CCTGTCAGTGTAGCAAGTTTGAATGTAGATAGCCAGAAGTCACTGCTGGGGGAAAGCAATTTCAATTTTCAAGCTTGT  
AAATTGTTTTTCACTGATTTTCTACTCAAATTTGAAATCTTTCTCTGCTGCTCAACATGTTTGTATGATGCTTATGAGCT  
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GAAACATGCTGTATATATATATATATAGATTATGTTTATAGCATTTTTCAGAGGCACTGTGCTCTGCTAAATCCTGTGT  
TTCCAGATGAAATGGCAACATTTTCCAGCAATGTGATAAAACAACCAAGAAAGTGTTCAGTGACCCGATTTCATA  
AAATTCACCAATAAGTCAATATATGAGTAAATAGTTATTACAAAGTAGCTAAGAGTAATTAATATGAGTAAAGTCTG  
TAGCTTAACACAGTAAAGTATCACTTTTAAATGCATTGCTTCTCATGGGTGAGGTTAGGAAATTTTACTGTTTAT  
ACCAATCCAGCCTACTGTTTATTTGTAAAAAATTACATTTGAACACAGTCTTACCATTATTAACCTTACTGTTTAT  
CACTGCTTTTGTCTAGAAAAGCAGAGTTGAGTAGTTGAAAAAAGAGTGTGGCCAGGCACAATGTCTCATACCAATAAT  
CCCAGCACTTTGGGAGGCCAAGGTGGATCACTAAGTGTGCTAAGTCTTGGGCTCAAGTGGGTGGATTACTTTAGCCC  
AGGTGTTAGTGACCGCTGGGCCACATGGTGAAACCTGTTTCTACAAAAAGTACAAAAATTAGCCGGGAGTGGTGGT  
GTGAACCTGTAGTCCCAGCTACTGGGGAGGCTGAGGTGGGAGGATGACCTGAGCCTGGGAGGTCAAGTAAGGCTGCAGT  
GAACTGAGATCATGCCACTGCACTCCAGCCTGAGGTGACAAAGTGAGATCTATCTCAAAAAAAGAAAAAAGAA

Fig. 6.16

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CTGTAATATAAGACCCCAATGTCAAAAATATTTACTATCTGATCCTTTACAAAAGCGTTTGCTAACTCCTGTCCTTGT  
GTATGCTTTGATTTTCATATTAATTATATCTTATGTTATTTATGATACATATATGANATACACATATATATCTAATATGT  
TATATATTTAAGAATTATTCACTATGCCACAACTGTAGATACAAAAGAAGTATCTCTAGGGAAAGCCAAAAACAAACA  
TGGAAAGAAAGAAGGCTAGCAGAAGCTTCAAAATATCAAAAACCTCTTACTGTGTGGCAATATAAACTAAAACTGAT  
GCTCAAAATCATGAAGATAGGAAAAAGAATCAAGACAACCAAAAATATGGTTAATAAAAATGAAGACAGAAGACATCA  
AGATGTTTATGAGAACCAGGGTCCTTTCAAACAGGGGGTGAAAAAGGAGTGAAGAAGATGTGCATGGCAGTGAAGAAGAA  
CTTAATTTGCACACAGTCAACGGGGGGTGGGCAGGAGGGCCAAACACAGCTGCATTTCTACCACATTATTTATTTTGGT  
AAGTACTGTCTCTTTTGTATGAGCCATATTTCACTCAACAGTGTAAATGACTTTTTTCCAAATCATTACTCCATAA  
TATTTACTGAGAATCAAACAGAACTTACAATAGAAAAAGAGATACTTCTAATTAGATATTTTGGAAAAAATCATTG  
TCGTGTGACAAGACAACCAAGAGTAGTCAGCTAAACCTATAGAAATGAAGTATTCTAAAAATGTGTGAGACAGCTAAT  
TAACACAATATTTTATTTTCTAAAGATCTTGCAGTGTGTGTCATCTTTATCACCTTTTAAAGTTTGCATTTTATTGT  
CACTTTTAAATTTTAAATAAATGTCCATTTTGTATCTATCATTCTGTGTCTTTATGTAATAGTATCTAATATCTAT  
ATCTGTATCAAATATCTGTATGTACTTCATATTTCACTTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTA  
TTTATTTTAGACAGAGTCTTACTCTGTCTTCCAGGCTGGAGTGCAGTAGCACAACTCTGGCTCACCACAACCTCCACCT  
CCCGGGTTCAAGCAATTACCCTGCCTCAGCCTCCTGAGTAGCTGGGGTTACAGGCACACGCTACCATGTCCAGGTAATT  
TTTGTATTTTGTAGAGATGGGTTTGGCCATGTTGACCAGGCTGGTCTCAAACCTCCTGACCTCAAGTGTCTGCCCCC  
CTTGGCTTCCCAAAGTGCTGGAATTACAGATATGAGCCACCACATCCAGCCCCATTTTACCTTAATTTGTAAAGATATA  
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TTTCAGGTAGAGGATTTAATTTCACTGAGTACCTGATCATTTTACATACCTAGTCAAATAAATAGAAATTTGAAGAAC  
TAAGATTAAGTTTAAAAATTTCTAAGTGCATACATCCATTGAAGAAAAACAAAAATTTGAAGCATTTTAAAAACC  
TTGATAAGAGGTCAACATGATTTAAATGTGAATTAGCTAATGTAAGTAGCAGTTAGAATGAGATTTAGCTTATAT  
ATTTGGAGGTATAATGGAAGAACTCTGGTGAGGACTCTTTTATTGCACACCAAGAGAAACATGAGAAAGAAAAATGAGTT  
GCATTTTCTGCTATTTTCCAGAGTGAAATGCTTTGCAACATCCTCAGAAAGAAAGAGAATACATGAGTAATATGAAA  
GAAACTATATAAAGGATTTAATTATTTCCAAATTGCCTGGGTGTTTTTTTAGTGCTGCTTTTTTTTTCAAGCAGGAA  
TAACGTAGAACTTTTATTTATTTTAAAGGAATGGTTACTATTCTTAGGAAAAGTGGCAGTAAATATAGTTAA  
TAACGGTAATTATAATTTTATAAACTCATTCAAAGCTTTGATTTTAAAGGCGATAGTAAAAAAATATATATCTATTT  
ATCTTGTCTCCTGAAAAATGGTAGCACTCCTGACCAGTGAAGAGACTGTTCTCCTCGGCATAATTGATGGCCTTCAAAGC  
CATCATACTTCAGTATTCAATGTCAAAGATTTATTTCCATTTGCAAAATTTGCTTAGAACTCACCTATATTTACCTTTC  
CTCTTATGACTTATAAGATAATATTAACATCTACATAACAGAATCTCACTCACAGAATGTTTGAGCCACGAAGGTGCTC  
TGAGACCCTCTGCCTCAACAGCCTCATTATAGATGAGAGAAGCCAGAGAGGTGAGGACGCTTCCAAAGCTCTAGCA  
CTTGTCTTAGACATGGAACCAAGGACAGCCCTTGGCATTTCACCACCATTTTCTGCTTATTATGTGGCATGAGCTTG  
TCTTTAACTGAATTAGAATATTGCACATTACATTGCAATTCATCAAGGCCTACCCTTCAGGCAGTCTGATGTAACAG  
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ATTATGATATAATTTACATACATTTAGATATATTTAAAGTGTACAGTTTATTTATTTAGTATAACACAGAGTTGTGCA  
AACATCACCACCATCTAATTTAGAACATGTTAGAACCCCAAGAACTTATATTCTATTAGCATGTTGCATTCCTGG  
CAGCTCCCTCTTGCCACCCTGTACCCTCAGTCTTAGGCAACCACTAAACAACCTTTCTGTCTCATAGACTTGTCTATTC  
TAGACATTTCCCTATAAATGGCATCATACGATATGTTGATTTTGTGACTGGCTCTGGCTTCTTTCACTTAGTATAATGC  
TTTCACATTTATCATGTTGTAAGTGTCTTTCCCTTTTATAGCTGAGTAATATTCATTGTATGTGATTCAC  
ATCTTTATTTATCCATTCATCACTTGATGAATATTTGGATGGTTTTTACATTTTGGCTACTAGAACATATGCTCCATG  
AACATTTGTGAACAAGTTTGTGTGGCATTATGTTTCCATTTCTTTTGGGTACATATCTAGAAATAGAATTACTGGGT  
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CAGTAAGTATGGCATGAGGATTCCAATTTCTTACAGCCTTGTAAGAAAGGAAAAATTTTACAATATAATTTTGGCAA  
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TTGTGGAAGAAAAATTAGAACTTTTCTAAAGGACATTATTTTAAAGTTTATTAATTTTATTAATA  
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GAAAAATCCATTACCTCAAGCATTATTTCTTTGTGTTTGAACATTTTCAAGACTTCTCTTTTCACTATTTTGAATATG  
CAATATATTTTGTAACTATAGACACTCTATTGTGCTATTAACACTAGAACTTATTTCTTCCACATAACTGTATGT  
TTGTACCCATTAAACCAATCTGTCTCATCCCCCAGCCCTTTCCAGCCTCTGGTATCTATCATTTCTATTCCTACCTC  
CATGAGGTCAACTTTTGTAGCTCCACATATGAGTGGGAACATGTGATCTGTTTTTCTGTGCTGCTGTTTATTTCACTA  
AACATAATGACTTGCAATTCATCCCTGTTGGCCGATATGATGAGATTTCAATTTTAAATGGCTGAATAGTATTTTGTG  
TGATATATAACCATTTTCTTTATTCATTCATCTGTTGATGACACTTAGGTTGATTTTCACTTTTCCATAGTCGTTGTGAA  
TAGAGCAGCAATAAATATGAGGTACAGTTGCTTCTTTGATTTTATTTATTTTCTTTTCTTTTGGACAGAGACAGTAGT  
GGGATTGCTGGGTGAGTGGTAGTTCTATTTTGTGTTTTTAAAGACACTTTTCACTGTTTCTTCCATAGTCTGTTGACTA  
ATCTACATTTCCCAACATGCATAAAGAGTTCCCTTTTCTCCACATAATCACCAGCATGTGTTATTTTGTGACTTTGATA  
ATAACCATTTCTAATGGGGTGAGATGGTATCTCATTGTGTTTTGATCTGTATTTTCTGATGATCCGTGATGTTGAGC  
AGTTTTTCTTAAACCTGTTAGCCATTTGTCTTTTGAAGATGTCTATTCATGTCTTTGCTCACTTTTTAGTGAGATTA  
TTTGATTCTTTGCTGTGCAATGTTTTGTGAGTTCTATGTATTTCTGGATATTAGTCCCTTGTGGATGAATAGTTAGCA  
ATTTTTTCTCATTGTTTCAATGTTATCTCTTCACTCTGTTGATTGTTTCTTCTGCGCAGAAGCTTTTGTATTAATG

Fig. 6.17

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TCGTTCCATTGTCTATTTTTGTTTTGGTTGCCCCCTGCTTTTGAGATCTTAGCCATAAAATCTTGCCTAGATCAATAT  
CTTGAAGCATTTCCTCTATGTTTTCTTTTAGTAGTTTTATAGTTTTCAGGCTCTGTATTTAA CTTTAATCCATTTTGA  
ATTGATTTTTTATACATTGTGAGAGATAGAGGTCTAGTTTTCTTCTGTCATGTGAATATCCAGTTTTCTTAGCACAA  
TTATTGAAAAGAATGTCCTTTCTCAGTGTATGTTCTCTGGCAACTTTGTCAAATAATGGCTGGCTGTAAATATGTGAAT  
TTATTCTGGATTCTCTGTTCTGTTCCACTGGTCTGTGTATCTGTTTTTATACCAATAGCATAGTGTTTTGGTTGCTAT  
AGCTTTGTAGTATATTCTGAAATGTGTAGTGTGATTGCCCTCAGCTTTGTTCTTTTTGCTGAGTATTGCTGCTATTTG  
GGCTCTTCTATGTTCTATGTGAATTCTAGGATTGTTTTTCTATTGATTCAAAGAATGTCATTAGTATCTTGATAGGA  
ATTGCATTAAATCTATAGCTTACCTTGGGTAGTATAGTCAATTTTAACAATATTAATTGTTCCAATTCATGAGCATAAT  
ATGCTTTTCTATTTTTGGTATCCTCTTCAATTTTGTTCATCAGGGTGTAGTGTTTTTGTTTTGTTTTGTTTTGGCTTT  
CATAGAAATCTTTCACCTCCTTGGCTAAATTTATCCCTGAGACTTTTTTGAAGTTATAAATGAGGTTGCTTTCTTGGTT  
TCTTTTTCAGATAGTTGGTTATTGGTGTATAAAAAACACAACCGATTTTTTATATTGATTTTTGTGTCTTGTAACTACT  
GAATTTGTAAATCATGTCTGAGTAGAGACAATTTGGCTTCTTCTTTTGTGTTTTTGAATTTGAATCTCTCT  
CTGTCTATCCAGGCTGGAGTGTCTGGTGTGATCTTGACTCACTGCATCCTCTATTTCCAGGCTCAAGTGATCCTCCCA  
CCTCAGCCTCCTGAGTAGTTGGGACTACAGGTGTGTGCCACCACCTGGCTAATTTTTGTATTTTTCATAGAGACAGG  
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AAGAGAAATCTTGGCTAGGACTTCCAGTATAATGCCGAATAAGAGTGCTTAGAGTAGGTGCTTGTCTTATTTCTAGTT  
CTTAGAGGAAAGGCTTTTCACTTATTTCCCATTCAGTATGATGTAGCTGTGGGCTCGTCATATATGGCCTTTATTATGT  
CAAGGTATGTTCTCTGCTATACCTAATTTGTTGAGAGTGTTCATCATGAAGGGCAGGTTGAAGGGGATTCTTTCTGAAG  
GAGGTTGTGTCACTCAGTGTCTGATGAGGATATAGAAGTCAGTGTGTTGGTGAGAGATAGTAAATTTGAAGAGGGAACATT  
TACTATAAAGAATTATTAACCTGGCAAAATGTGATAAACTACAAAAGGGGTAAATTTGTATGCTAAATAACACAGAAATAG  
CAAACATAGGGAAGAGCTGCTACTTCTAGGACTGAGGGAGGATACCAAGAAAAGAACAAACATGGAAGGGTCTTTTAC  
ACCTNAAGGCTGAGATTCAAGCCTTGTGGAGAGGGTGGTGTCTGTGGCCCCGAGGATAGAAAAGTTCTTTGAGGTGCCA  
CAGGCCAGCCTGGTGAGTAGGGTACTGGCTGTGGGTGCCAGTGGATCAGCACTGTGGTCAAAAAGTGCTTCTAGG  
GTGCTGGAAAAACCCACTGGAAGGTGGTCAACCTTGGGTCTCTGTCATACTGTGGCAAGGAAATGCTGCTCGGGTG  
ACAATAAACTCAGTAGGAAGCCCTCACTAGGTGCTGGTGGAACTCACTGTAGGGTCACTCTCCATACACCACCTGGTG  
GCGGCCACAGGTAACAAGAACCAGGAAGAATCAAGAAGGAATGCTCCTTTATTTGCTATACCTTGTTTTATTTTATTTT  
ATTTATTTATTTTTTTGAGACAGAGTTTTGCCCTTTTTTCCCTGGCTGGAGTGCAATGATGCGATCTTGGCTCACTGCAA  
CCTCCACCTCCAGGTTCAAGTGATTCTCTGCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGCGTGCTAATTTTGT  
ATTTTCACTAGAGATGGGGTTTTTACCATGTTGTCCAGGCTGGTCTCAAACCTCCTGGCCTCAGGTGATCCTCCTGCCTCT  
GCCTCCCAAAGGCTGTGATTACAGGCATGAGACACCGCATCTGACCCCTTACTATACCTTGTAGTGTCTCCCTTACA  
CTCTACCAGCAACAGATGACATTGCACTGGCTGACCGGAGCCAGATTAGTATCGTGGAACAGGGCAAAGAAGGGTGG  
ATTTGGAGCGGAGAGGCAATATATTGATAACTGTCTTGGTGAACCTCTTGGCTTCTTAGCTTCCATGACACCTTTT  
ATATATATATTTGAACTCTGTATAACACAAAGTCAACTCTGTTCTTCAAGAGAAATGCAGAGTTCTCACCCCTTTCCCA  
AATGAGGAGACACAGTTTCCAACAGTTATCGTAGTCTCATCTGGCTGTCTTAAATACTCTCAAATCAAAGTCCCACT  
GAATATTCTCTTACCTAAAGGCTAAATTTAGAGTTTATATTTCAACAACCTTTCATAAAATAATGAAGAGAGAAAAAGGA  
AAATGGTTAATATATACAAATACACACATATACATCAGTCAAGAGGAAATACACAAAACCTGTCAGAAATCTCAGTT  
TTGTAATTGATTGAGAGGCCATAGTTGGTATCTATGGCTTCTCTTCTACTGCCTATTCTGTATTTCCATTGCCCTTA  
AATGGTCAAGGTTCTTATCTGGGGAGTGATCCAAACTTTCATTCTCAACAGCCTGAATCTCAATAATCTGCCCTT  
TCCTTTTGACTCCTGCGGTTTTCCCATTAACCTTTATTTTCAACCTTGGTGGTCCAGGTTCCAGGAGTTAGCTAATATTGG  
AGATGACGCATCTGGTCTGAGGAGGTGTCTGGTGAGATGGCTGTTTTTCCCTTTGGTCTCTGGCTTGGACCTCATAC  
ATTGCTGTTGAGCCATTGCTTGTCTGTCTACATGGCATATTTACCTCAGGAGGCTCTTTCCACTATCTTCACTGTGAT  
ACTTGAGGGAGCTGCATCATCAGTTTCTTGTCTTCCAAAACGCTGGGTGGAGGGGGAAGGGCAGTGGGGTGGGGG  
AAGAGGGATCCAGAATCCCTGCACGGACTCCTCTGGCTGGATGCCAGATGCAGCCACTCTCTTCCCATCTCTGTGCTC  
CTTTTCTGGGTGGTGGTAGGGTGGGAAATTACTTTCTGTTGGTCTTGGATACCTTTCAGAAAGACATCAGTACAT  
TTTGTAGCTTTAAAGGTTTATGTTCTTAGCACTTTGCCATTTGGGAAATCAATGCCAGCAAATCCCATAGAACTTGT  
TGCTTTTTGCTTCAATTTACCCGCTCCCTGAAGCAATAAACAAGAGATGGCATTCTGCTTATAAAAGGTTAGTATAGT  
AAAAAATGAAGAAATATATCTCACAACCTCATTTCCTCATCTTTAATAAATAGTGATAGACTTAAATAGCTAAGATTG  
AAAATGATGCCTATTTGAAAATTTACTAAGTAATTACATTCTAGCAGTTATACATGAGATATTTATATATATCATAG  
TACTATAAATCTAATTATCTGTGGTATAAATAGACATTCCTAATCACTTCTTTTAAAGCATTTCTCTTGAACCTTTCGA  
CATTTGAATTGGATTGAGAACACGGAACAAGCACAACCTTAAAGTGTGAGACATGCTAGATTTCTTTCTGCTCCCA  
TGGAAAAGTAAACACAGCATAAAACACTCATCAATTTTGAAGTTAAGAATGTGCTTTATGTAGTTTATCTTAGAAA  
AATCCTCAAGTTATATAAATTTTAGATTATGAATGAGTTATGGTCAATTTGGAGATGGCAACAGAGCAACTGGCAGGTT  
CAAGAATTTATACAAAAGGTGAAAGGCTTTTTGAAACAATCAGAGTTTTCTTTCAAGTCAACTTCTGAGTAATTTA  
TCTGAGAAATTTGTGAGATGACATGCAGGAGGACTTTCAAATCATCCAGTGTCCCTCAATCAATCTGGTTCAAAATG  
CAGAATTTGGAGGACAGGTCAAGAAAGCAGACGCTGAAACAGGAGGAAATGAAGTCGGCTTATTGTGAACATGACTTTTT  
CCCATCTAAAAAAGATGATAGTTTACATTGTTTTGAGAATTTGGAGTGGGAGAAGCAGACCAACCTTTCATACTGCT  
GAAATATAATTTTCTGGCCACACATCTTCTCATTAAATGTCTCCAATTCCTTACAAAAGAAAAAAACCTTCTCTA  
CATTTTTTCTATTATAAAATAATTTATAGTTGTATTTACCAAATGTTAAGCATGAATGTGGTAACTGGTGAACA  
GCTTAATCTGTGGTGGCATGAAATGATGAAAAATAAATATATTTCTCTTTTTTTTTTCTGTTTTTATTCTCCATCCA

Fig. 6.18



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CATCAACTGAAGGGTAGCTAGATGGTTTTGTGCAGAACTCTGAGTGTCCCTTGTGCCAGGAGATGCTTTTGTACCTAG  
ATCTGTGCTTCTGGAGCTACTTCACTGGATTGATGTTTAGGGAGGACTAGAAAGTTGAAGGGGGAAGTTGAATCATGG  
AGGATGTTGGAGTGCTAAGATCCCTGAATGTGGTACCTGTAGATAAATACAGTGAATTTGAGACGCAGAGCAAGACTC  
CAGTGGAGTCTGTTTATTCAGTGAGCAACAGCGTCACCCACCATGGAATAAATCAGGTTGGGGTGGACAATGTATTCAA  
GGTTCTGTGATTAAAGATTGTGGGACACACCAGCGGCCCTTCATATAAATAGATTTACAAGCCTCAGCCTTCTTATGTT  
GGTGGGTGGGGTAGATGGTGGCCAGAGAATGACTGAGATTGGGTTTTCTGTCAACTCGAATGGGAGAGGCTCCTTCAGT  
TGAATTAGATATGTAAGGTAAGAAATGTGTTATTTATGTACCTGTGGATTGTGAAACAAATTCATGCTCACTAC  
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GCCAGTATGATTTGAGCCAGAAGATTAAGTTCCATAAAAAGTGAAGAAAAGTCAACAATTTAACACAAGAAATGTTTAC  
CGACTAACTATTCTATGCCAGGTCTGGGAGTATGAGGAAATAAATGTGACATATCCCTTGAGAAAAGCAGAAATAATCCA  
AAGAATTCATACATATACAAATTATTAATTACATCAGTAAAAATCTTTATGATGGGTGTGGCCAGGTCTGGGGCTGGAA  
GGCCACCTCAGCAATTGCAAAAGAATTAGTCTTCAGTCCAGCCCTGAGCTCACAGAATTTGCTGAACCTATTACTTAGGGGAA  
TATACCCCTGAATATCATTACTTGAAGAAAAAATACACATTTCTTTGGAAGAAAAGTAAATCAGAAATCTTTGAGGGTT  
CTCTCGAAGAAAATCAGACCTGTAGTTCTAACCAGTCAACTGACCTTAGTTGAGAATGTTAATGTGCCAGAGAAAACAA  
TGAATGCTCACCTTCCGAGGAAGACAGTAGAAAATAACCCGCTTGACTATCTTCAGCTGGAAAAAGAACTCTTTTTT  
TTTTTTTTCTGTGACGGAGTTTCACTCTTGTGTGCCAGCCTGGAGTGAATGGCACAATCTCAGCTCACTGCAACCTC  
TGCCTCCCGGGTTCAGGCAATTTCTCTGCCTCAGCCTCCCGAGTGGCTGGGATTACAGGCGTGACCACCACGCCCGGC  
TAATTTTTGCAATTTTCACTAGAGACAGGCTTTTACCATTGTTAGTCAAGCTGCTCGAATCCTGACCTCAGATGATC  
CACCCACCTCAGCCTTCCCAAAATGCTGGGATTACAGGCGTGAGCCACCGTGCCATTGCAAAAAGAACTCTTTAATCC  
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AACTGTGAAACATACTATGCTATATAAGAATCCTTAGAGATGTAAGTGAACACCAAGATCAAAGCACAGGGGACTGT  
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AGAGCCCTAACTGCTGACGGGAGAGCCTAGTCCAGCTCTGGTCTTCACTGGTCACTGTGAGATCTTAGGCAATCACT  
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TTTGTCTCCCATCCAAAAGTCTGCAGATTCACTAAGGAAGTCAAGTAAAGGGCCAATCGGGGATTGGAAGGATTCAGAG  
CTACAGGAGCTATTCTTTTCTCTGGGTAACCTAAGCCAGAAGATGGAGAAGCTCACCTAAAAGCTCTGCCATCAGGT  
GTGTGGGTGGTGTGTACTATGGTGTGGAGAGAGGAGAATGTCTCAGGAGACCAGGTAAGGGTTTCTATGATTGCAGAA  
CCAACCAAAGAGCCTTGGAGGCACCAATGATGATGATTTTCTCTAGTTCTTCAAAGCCAGGAAGTGGCCATATTGTT  
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AGTTTTAGAAGATGGAGGTAAAGAGCTCATCTGTATAAGGTCTGAAGATGCACATATCATCTTGGAAAAAAGAGGCT  
GTTATTCCATCATTTCCACATACACGGTTTTGTGTACAAATTAAGTTGAAATTCAGTCTTTCAAAAATAGAATACATG  
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TGACACTAGTTTATGAGAGAGATACAGGAATACAGAAATAATATCATAATAAATGCAAGTCTGAGGCTTGAAGTGA  
TCTGAAGGATCATTTTATGAGTATGCGTAAACAGGAACCTGATGTGATTGATCAGTGAAGCAAATTTGCTGCTTGAAGTGA  
GATCCACAGTGGTGTCTCCCAAATTTTATGTGCATATGAATATCTGGGGATCTTGTAAATGCAGATTCCTGTGCTGCT  
TCTGGGGCTTGGGGAGGAGCCTAAAAATTTCTGCATCTCTAATAAGCTGCCATGTGATGCTGATGCTGCTGTGCTGCT  
TTCTAAAGGACAAACATAACGGAAGCAGGGGTTGGGGGAAATAAGTTTTCAGGGAGGGAACAGTTATACACAGCAAG  
AACATAGTCTGCATGGTGTCTTCTGGTCCCTAACCACTGAAGCAAAGGTCAAGTAATGTTCTACCTTCTTCCATGAC  
TAATTGGCAGGATATATGTTCCCTGATAGGACATTTCCCACTTTAAGGCTGCTCTTTATGTTTACTTCAAATTCCT

Fig. 6.19

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TTTACCTCTTGTAATATTGGGATTTCCATTTAAAGGTCAGACAAAAGATATGTCTTCTACCCTTCTCCTTAGAATTT  
GCCAGAAAACAGGGACAGAAATATGAATTTTCATATTTTGATAAACCTTGAAGACTAACTCCCAAAAGATAATATTGGAG  
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TGCTCTGTAGCTGCCAATGCCTGTGGCTGGAGAGAGGTAAAAATTCAAAACAACCCGCACATATAGTCTTGTATCATG  
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CAACATCAGGAAGAACACACTTTCATTTAAAGATGAGTAACAAAAGGCAACTAGCACAGGATCTATACAAATAANTTAC  
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CAAAATAAATGTCTATGAACAATGAATTTAATGAAACAATGAAGAGGCTGGAAGCAGAGCAATTGAGAGATCAGGGGAA  
ATACGTACACCACAGGAGGAAATGAAACAAGAATCTTGAAGGTGAGGAAGGAGCAGAAAGAGAAAAATAAAGCTA  
CCATGGAATGCAAGCATACTGTAAATAACACTAAGAAGAACTGCTGACATCACAGTGAGGAATAGGAGGGCAACA  
TTAAGACACATAAAACAAAAGATATAAGCAAAATAACCAAGTAAGTAAAGTTAGAGTGAAGTGAAGAGAACATGAAAG  
ATACAGAAAACAAAAGAATTGCAACATATGCATTATTTGTATCTTTTAAAGAAGAAGTCTGGAGATATTACTCAGTAAAA  
CTCTTTAGAAAATAAATAAGACTTGAATCTACAAATGGAAGGGCATACTGTAGCTCAGAAAAAATTGATACAGAATTGA  
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ACTGCAATGCAGTCGATCAGATAGAAATAGTACAGACATTATGTCTATGCAACGCAAACTTCAAAATGTTAAAGAGAGA  
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GTAAAAATAAGACAGGCAGAAATAGAAATAGTAAAGATAAAAAACAGAAATTAATTAATTTGAAAAATTTAAAAATGC  
CAAAATAAAGTCTATGAGTTGTGTTTTGAAAAATTTTTAGTAAAAATGTGTCTATGCTCTTTTTTTGAAATGATAACT  
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TGTTTCATATAAGTGAATAATATAATTTGTCTATTTTGTGTTTGGCTTATTTTCACTTAGCATGTATCAGAACTTCAT  
TCCTTTTTATGTATGAATAATATTCTGTTGTACATAACATAACCACATTCTGTTTATACAAATGATTTTGTTATGTGCTC  
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AAGCAATAAATGTAAAAACCTGGATAAAATATGTAATTTCTAGAAACGATAAAGTTCTAAGGCTGGCCCCAGAAGAGT  
TCGAAAAATCTAAAGAGACCAATTACAATAGAAAAACAGGAAAGTCAGGCTATCCGCTTCCAACTACCAGGCACAGA  
TATTTTTACAGGTGAGCTCTTCAATAACCTTAATGACTCAATCACTCTAAAGCTTTTAAAAATCTTCTAGAAGAAAAGAC  
TCTAGTTACTTTTTATAAAGTGGAGGTTACACTGGTGTGAGTATGCCACAGAACCAAAAAATAAAAAAGAAAGTCT  
AATGTCTCTGTGACTATCAATACAAACATCTTCAATAGAACTAGCAAAACATATTTCCAGGAGGACAGTAAATGTCC  
TTCCTTTCAGGAAAGGAAGGATAGTTTAAATATTAGGAAATCTATTGATATTGTTTAAACATCCTAGTATATGTAATAAAC  
AGTAAACCATATGCCCCCACTCATGGTTGTGAAAAATGTTTGTATATAAATTAATCCATTATTGATTATGAAAAAA  
CACCTCATCAATAGAACTAAATTTATCATTAGTAAATATATTTGTCTTACCTCAAAAGCCAGGTATGTTTAACT  
AGCAAAACCATACACTCACATTAAATTGGGACAAAGATGCCATTACCACAACATTATTGAACATTGGTCTTGAGGTGCTA  
ACAACTTTTAGATAAGATAAAGAAAGAGTGGTATGTACAAGTTGGAAAGGAGGAGGTAAGATAATCATATTTGCAATA  
ATGTAACCTCTGTGCTTGAAGCCCAAGAAATTAACAGAAAGATCACTGCCAACAAATAGTAAAGAAAAAATAA  
GAGAAATTGAGTAGTGTGGCTAGAATAGTCTTTACACACATAAACAACAAATTGGTGTCAAGATATGCAAGAAAGGACTGT  
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GAAGTATATTCAAGAAATGTAAACAGTTGTGGGTGAGGGTAGGAAGTAGTGTATGTTTCACTATATTTTTTGTGTA  
CCTTTGAATTTTGCCTATTGTGGTATTATTTCTTTTAAAGGCAATTTATTTTATTTTCAAAACCCAGCACA  
GAATATTAAACAAAGTAGATAATACATAGGATGGATATGGAATGATTGCTTGGATCACTCCAGCAAGGCATCTGAAC  
ATTCACATGGTTGTGTTTGAAGCTCCAGGGTCTAAACACTGTAAGATTTCGGAGATTTATACCAGTACAGACTCACA  
AACATTTGATTTTCTCATTTTTCAAGATTTTTCCCTCTGGCCTTTTCAATTTATTTAGTCTTCAGTAGAGAGAC  
CAGGGGATGGCTTGATTTAGGGGCTTAACCACTCCATCTTCATCAGCTCCATTAGCTGAAGCTGTTGCTGTTCTTC

Fig. 6.20



[illegible]

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TCCCTTAGCTAGACATAAAGATTCTCCAAGTACCCACCAGACTCAGGAGCCCAGCTGGCTTCACCCAGTGGATCCCGCA  
CGGGGGCCGAGGTGGAGCTGCCTGCCAGTCTCTGCGCTGTGTGCCCGCACACCTCAGCCTTTGGGCGGTTCGATGGGACT  
GGGGCCGATGTAGCAGGGAGTGGCGCTCCTCGTGGAGGCTCCGGCGCGCAGGAGCCCATGGCAGGGGCGGGCGGGCGGG  
GGTGGGAGGAGGGGAGGCTCAGGCATGGCAGGCTGCAGGTCCCGAGCCCTGCCCTGCGGGGAGGCAGCTAAGGCCCTGGT  
GAGAAATTGAGCACAGCAGCTGCTGGCCAGGTGCTAAACCCCTCACTTCTGGGCTGTGGGAGAGCCTGCTGAGC  
CCACGCCACCCAGAACTCATGCCAGCCAGAACTCGGGCCACCCAGAACAGCGCCGTGCCAGCCCTGGTTCCCG  
CCAGCGCTCTCCCTCCACACCTCCCTGCAAGCTGAGGGAGCTGGCTCCGACCTTGGCCAGCCAGAAAGGGGCTCCCA  
CAGTGCAGTGGCGGGCTGAAGGGCTCCTCAAGCACGGCCAGAGTGGGCGCCAAGGCCGAGGAGGCACCGAGAGTGAGCG  
AGGGCTGCAAGGGCTGCCAGCACGCTGTCACTCTCAATACGATCTGTGAACATGTGCCCTTTCTCAGTTTCAGAAAGCC  
ATTTAGAGCAAATGTACTTATTTACTTTATCCAGGCTCTGCTTACTCTCTCTCTCCACAGCCATCTCCTCCATTAGA  
AATGCTTTTCCCTGCCATTTTGGACAGCCCTGAGCCTCCTGGCCTCCCTGCCTGAGACGCATTATAGTCTCTCTGACC  
TGGACCACTGCATGCAGCTTGGGAGCTTCCCTGTCTTTAAGGTATCGGACAAAATATAGATGAGAGTAGCAAGGCATTA  
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TGTGCCAAGCATTATGTTTATTATCTTACCACCTTGACAAGGACCTTATGAGGTGGGTACTATCAACCCAGTTTCT  
CAGAAGGGGAACTGAGGCTTATAAAGAATATACAACCTGTCTCAAGTGGTAAGTGGAGAGAGGATTTAAACCTTG  
GCTCTTCAACATCCCATACCTATGCATTTAGTTGCTGTTCATAAATAGTCACCTGCATATGTTTCATCTTGCTTTTACC  
TGTGTTTACCATCTTTTGTGAACTCCTGGAAGGCAGGTCTGTCTTCTTTTCACTCTTTTATACCATCTCAGAGG  
GCTGTAACAATACATGCTCAGAAAACATTTCTGTGTTCAACCTGATGAAGTACAAGGCAGGCTGAAATGTAAAGAAATAC  
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GCAAGCTGTAAGTGCAGTGGTTACCAAAATCAGAAATGAATTTCTCCCAATCAGGGGGGACATTCATTAAGCTTCTGAG  
TGAGGTCTATTTAAGGATTTTGTTCAGTTCTCTCTTCTGTTTCTGGCCACACTGCCAGCACCTTCAATTGGCTAA  
TAGGGATTCTGAATAAGAAAGATACAGGCAGCTCACTTGAAGTACGTTAAGGACTAATAAGATCTTGGAGTGATTT  
TCAACAAGATAAGATCAGCATCCTGGTATTGAGTTATTTTGCTACATTAATTAATTTAGTTTGTCTAATGGTCTTTG  
GCCTCCTGCTTAAATGTCAATTGAGGCAACAGATTAATTTCCCTTAAATAGTGGCCTGTCTATGTCTTGTACTTAGTTC  
TGGGTTTTATAAAGTAAGAACTAAGATGGATATTTATCAATCGAGCAGATTTCTGTGTTGTGTCTCTAAAGCCCTTGG  
GGTCACTGTCTCACTGTAGCATCACTAACACCTTTTATGGAATCAAGTGATTAATAAATGTGTCTCTCATGAGACTGTGA  
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ATCTTGTCTATCTGGTGAAGAAAAAATAAACCTTCACTGGCTTTCTAAGACGATGAAATCAAATTCAAAGTCTCATCGT  
GGTATTCAAGGTCTTCTGTAATCTCCCTCAGCCTGTGGCTCTTACTGATGCCCCATTCTTCTATTGCTCAGGGTGTCTT  
TGGGCTGTAGCCACTAGGTTGACGAGCATCCTCTTGACGAGCATCCTGATGATGCTGATAAAGTGCTCAAGGACATTT  
TGGGAATTTTTCTTTAGTGTATCTAGGATAGTATGATCAATGCAATTTTTATGTATAAATCTTATTTCTGTCT  
ATGTTAGTTGCCTTGAACAACAACTGGGCTTTGTATCTGTGAGGCTACAAAGGCTTGACACTGTACCCCTTAGAAA  
GGCCTGCTTGCCAGGTAGCCTTTGGTTGGTAACCTGGGAAGTGGAGGCTCTCAGTCAACAGTCAATGAT  
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GAAGCTTCTGTGGGCTGAAACGTATATACAAGTTGTACATTTCTCTGTGATCTATGTGATCTCCCGTGGTAGG  
CAGAAGCATAAGGAATCTGCACGTAAATCATTGACAGCTGACCTGCTGGCTCTCCCTTATGATCTGGCTGTGATCCT  
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GACGTGACCACATGAAAGGAAGGGGCTTTGTGAATTTGTGCGGCAGACTGAGATTCCTTTTACAGCATTTGAGAAATA  
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CCAAGTCATGTTTGCAGTTTACGTCTTAGGGTTTTTACAGATTTTATTTGATGGTAGGAACCATCATTTGTTCTAG  
ATTTAGCATGTGAAATTTCCAGTAAATTTTGGTGACAATGACTGATTGCTTCAATTCATAAACATTTATTGAATCTTG  
CTGTGTGCCAAGCATCGTGTGTAGAGGATACAGAGATGAGCAAAATAGGTCCCTACTCAGATCATAGAGGGGAGGCCG  
ACTCAGATGCACATTTCCAATCAGATATGGTGAATACTAGTGGTGAAGGTTAGGAGCCAGAGGACAGCATCTCAT  
CACTGGGACCTTGTCTTCTACAGGCTTGTCTGCATTTTATGGCCTTAAATTTACCAATGTAGTTATCTAGTGGTG  
CTGATAAATCACTTATAATTAGTTTTTTATTGCTAAGTATCAATTTTAGCTGCTGTTTTTTAACCTTTCTTTAGTTT

Fig. 6.22

CTGCTACATAAATTCTTAGAATTAAGAGCATCAATAATGGACCTTTGCAAAAAATAAGCACTTTCTAACACCAATGTGC  
CATCCATCAGCAAAGGAGGCCATTAGCAAAGTCCAAATTCATAGACTGCCTCTGATTTTGCATTTTAAACTTGCTAATAT  
TTAGCTCACAGTGTGATTTTCCCACGGTCACACACCTAGTTGGTGGTGAATTGCCGTAATTTTGCAATTCATATTATTT  
TGCATGTATCTCATTTTATTTGTATTCTGTGCCAATCTCTCTGATATTGAATGTAAGTTTATTGAGTGCAGATGCTCTGT  
GTTTTTATTTTGTGTCCCTAGTGCCCAACATATNGTCTAGGGAGGAAAACTTGTGTAGATAAAACAATTAGATGATCT  
ATTAGGATCTGTAGAGAAACAAAACCAATAGGAAATATATAGATACATAAGAGGAGATATATTGTGGAATTTGGCTAG  
TGCAATTAAGGAGTTGAAAAGTCTCAAAATAGTCATCTTGAAGCTGGAGAACCCAGGAAGCCGATGGTATAATTCAG  
TCTGAGTCCAAAGGTCTGAGAACCAAGGGGAGCCATGGCATAACTTCCAGTCTGATGCCAAAAGGCTGAGAAACTTCA  
GGGGAGAACTGGAAGTCCCAAGAACTAGNAACTCCAATGTGAGAGCAGGAGAAGATGGATGTCCAGCTCAAGGAAAGA  
GAGTTCACCTTCTTCTGCTTATTGTTGTATCTAAACTGTCAATAAATTGGATGATGCTGGCTCACATTTGTGAGGGC  
GATTTTCTTTATTTAGTCTACTGATTCAAATGCTAATTTCCCCGAGAAACACCCCTGAGAGACACATCCAGAAATAATA  
TTTACCAGCTATCTGAGCATCCCTAAGCCCACCAAGTTGACACATAAAATTAATAATCACTGATGATAGTAATGAAAA  
GAAAAAACTTGGATTTCTGCTTTTTTGGTCTTCATGAGATATTTTCTCACTGTATCTCTCTTCATGAGATATTTTNCAC  
TATATCACATGGATATATTTTCCACTTCGATAGATAGAAAATATGCATGGAAAAATGCATCTATTATTTATTGAGCAC  
ATATTATACTTGGAGGCATCTGCTAGGCATGTATTGAAACAAGATGATTAAGACAGTGTACCTTTCTTAAGGCACAGA  
AACCATAAGATAAAATATACAAATGACTGTAGTGAAGGTAGAATATACAAATGCACAACTAAGCAAATCTGAGAATGGG  
GCTTTCACACATTGTGGGAGAATGAGAGAAAGCTTCATGGAGGAGGTAACCTTTTGACCTAAACCTTGGAGCAGGAGCAC  
CTGAGTTCCAGAGGTTAAATAAAAAATGAAGGCAGAGGGAGAGAGGGCAGGGTGGGCAAAGGGAAAAACAGGAAATAT  
AAATGTGAGTCATTTTGGAAAACGTGTGGGAAGTCTCTTTTAGGTGTGGTGTATGAAGTGTGTGTATGTTGGGGGAATA  
GAGCAAAGTAAGGATTAAGGTGAGGTTCCAGGCTATGTTGCCTGGCCAAGCTCAGGGCTTTGCACTTGGTTTCATCAG  
CATTTGATATGTTTTTGTGTTTTGTTTTTGTGTTTTTGTACAGCGTCTCGCTCCGTCACCAGTCTGGAGTGCAGTAGTGAAT  
CTCGGCTCACTGCGCAACTCTGCTCCGGTTTCAAGCAATTTCTCGCTCAGCTGCCAAGTAGCTGGGACTACAGGTC  
TGTGCCACCCCGCCAGCTAATTTTTGTATTTTTTAGTAGAGCTGGGCTTACCACGCTTGGCCAGGATGGTCTCGATCT  
CTTGACCTTGTGATCCGCCCGCTCGGCCCTCCAAAGTGCTGGGATTACAGGCGTGAGCCACCCTCCCGGCAGCACTT  
ATGGGTTTTAAATATGAGAGTGACAACATCAGGTTATTGGGCAGCAGGAGGTGGGCCAGTTTTGAAAGGCAGGTGAATG  
AGGCAGTGAGATAAGTTGGGAGGGGCTGCAATAGTTTCAGAAACAAGGTAGTGTCAAGTAAATCACAGGTGGCACCAGA  
GATGAAGAGGAAGAGGCAGTGTGACAGCTCTGTTGCATGACACAACATGGGAAACGCAGGATTGAGAAGAGCCAGAGGT  
GATGATGCCATTAGCAGCGTGCATTTAGTACTTATCACAACTATTTACATTTTCTATATAAACATTGATCTCATTAGA  
CTGTGATCTCTTAGAGGAACAAGTCCCATCTGCTATTCTATGACAAAATGAACATGGCAGATCTTGGTAAATGTTTGC  
TAGTAAGTGAATGAAGTCAGGCGAGTTGGCTTGGTGATGGCAGCTGGGGTGTGTGATGGAAATACCGTGCTTCTTTTTG  
GACATGATGGAATTTGGGGATGTGGTCTATTTGTTAGATGCAGTTTCTAGGAAGAGATTACCCAAAGAACTGAAGAA  
ATGACAAACTTATGTGTATGTGAGGGCAAGATAAAGAGTAGAGAGATGGTATAGTTGGGTATGGAGAGAATGCTGTAA  
TGAAGTGTCTCCCTCAAGATGTGAGGTAAAGATTGGAGAGAAAATGCAGGATAGCATTGTGTACAGGTAGTTGGAATGTG  
GAGGGAAGACTGGAAGGATGAGAAGGACTGAGGTGGACCTGTGGGCTGTGTTAGCCGGTGAAAGTTGGAGGGAAAGGGA  
AATGGGAGGCAGTAGAGCATGGAGTTACATATGCAGGCACTGGAGTCAGGCTGTGAGGTTCAAAGGCTAGCTCTTCTG  
TGGATTTGTTATGTGACTTTACAGCTCTCTCTTGGCTCAAGTCTCTCTCTGCAAAATGAGGTTAAATAATAACCTG  
CATAAAACATGTGACGACACAGCAACAGAAGCTGGAATGTGATAAGCATTCATAGACATTAATCTCTTCTACTGAAA  
CTCACTAGGGTCACTTTGTGCATATTATCCTATTTAATCCTTAGTAACGTATAGGTAGGTGTATTATCTTCAATCTG  
CAATGAGAAAACCTGAAGTGCAAGAAAGTTTCATAATTTTCTCAATCCACAGCCACTATATGATGTGATAAAGCTT  
ACCTAAGCTAGAGTCTTACCTGATCCATCTGGTGCCCGGCTAGTGCACTTTCTCTATAACACTCAGCCTAAGCTAGG  
TAGATATGGCAAGACCACTGGCTGAGGCAACTCAGATGTGATCAATAGGTAGTAGGGAACGTGGCTGACTTGGGGGA  
GGGAAGCAGCATGCTGGAAAGATTATCTGGTATGTTTATAGAAGAGAGCAGGCAGCAGGCATGGGGGGCTGATGATT  
GCAAGCAGAAATGGCTGAGGAATAGGTGAGGCTTGGCAAACTGCAGAGGAGCTGTGATAGAAGAATGAGCAGAATTTAT  
GACTGATGCAAAATAAGGTAGATATGATGGTACGTGACGAAACTGACTAAGAGTCTGTGAGTGGGTCAGCTTAG  
AGTTTCAACTTGAAAGTTTCAAACCTGGGACTCTAAGAAAATAGTCTGAATGGTAATGAGAAAGTTGTCACTTTAGTAT  
CTGCTTCCCTTGAAGAAAAGCACCTTTAGAGGAACCAACTTGGAGAATAGTGTGCGATCAAAGTGGGACACTTCATTAT  
TTTATGAGGTCAGATGGTTCTGATGAGCACACCGTCGGTAACCTTTACTTCACTGTCACTCAGCTCTGTCAATCCTCC  
TTTATTAAGGAAGGAAGCTGATGGATCTTTCTTTCTTTCTTTCTTTCTTTCTTCCCTGGAGTAGGATGTTTCTGTAC  
ACAGTTAGCATGTGAACCTCTTTTTAAAAAGAAGTTTACATTTTACTCTAATTTCTCATCCATAACGGAGTGTGGTGATT  
TGCATTTGGGCAGTTAGGAAAACAGTCTGTGTGACTTCTGTTTTCTATTTCTGGCCTCGAGCAGAACTTCCCAATTTG  
AGTTGGGACCAAGAGCATACAAAGCTGAAATGTTCTCCAGAAGTTGATTTCCAATGGGGATAAAGTAAGTTAATGGT  
CTGAGGTGTTTGTCTCCCCTTGCCCCGAAGCTTGCCCTTTAGTTGCTCTTGTGTTTTTAAACTACAGGGAATGAACGTAG  
GGAAGCATTTTTTTTTTTTTTTTTTCTTGCAGGTGAGAGTCCCAAAGCTTTAGTGCAGGGTTCCAAGGACTCAGGAGTTCA  
AAACATGCTGCTTAGGCTGAGCTCTTGGCCAGATTGGAGATTTCAATGTCTTCTCCCTTTGACAGTTCTTAAGAATAT  
TTTATTTGGATCCTTTTCTTTAGGTTTTTCTGTCTAAACATTTTATTTTACCTAGTGTGAAGGGGTGAGGGAGGGCAGA  
TTGTTTCTTTCTTCTCTCTCTCCCTTCCCCCTCCCCCTCTCCCTTATTCTCTGTTTATAATTTAAAGGATGCTCACT  
TTCATTTTCTCATTTGCTTCTTCTCACAGCACCCCTGTGAAGCTGATATTGTTATCCCCCTTTGACAGAAAGGGGAACTGC  
AGTTTCAGTGAATTTCACTGACTAGTCAAGTCACTCAGTTAAGACTGATGAGTGAAGCCCTAGTGTCTGCCTTTA  
GATCTCTTTTCCAGTACCATACTGCTTTTTCTGGTGGAGGTTGTAGTATATAGGATGATGTGAGAAAGGAGAGGCTGG  
GAAGCCTGAACGATCACATCGACAATTGAATTGTCTGTTTTTTCTAATAAAATAGAAAATGTTAACTAAATATATTGC

[illegible]

Fig. 6.25

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GTGGCATAGCTCAGGGTAAAGTGGCTCTCCTCACCTCTCAATACCCTACTGTCTTTTGCCATAAATCCAGTTAAGGATG  
GCTAGAGACATCATATGGGAAAGGGTGGTCTGAACCCAGAGAGATGGGAGAGCAAATGCTAAGGTGGTCTTGAGGGT  
AGGGATGGAGAGCCAGACAGAGACAGGTGTCTCCAGACAGCTGTCTTTATCATTCACTCACTGCGCTCTGCAGCTCCT  
GCTGCTCCTTCAGAAAGCGAATGTATGTTGCCCTTAATGCCCTTCTGAGCTAAAGCCAGTAGTTCTCAAACATCCT  
CTTTCAAAGACACTGAGCCCTGGTAACCTTCATTACATGTTGTTGTCATATTTTTCTCAAGTTAACTCACTCATAACC  
TACAGTTTCTTATTACATTGATATATTGATTATGAATCTTTCACCATTAACTTTTGTTCACTTTCTATTCCATCGCAAAC  
TTAATATTCAAAAACAGGCTTAATCTGAGCACAAAGTGAATGGTATAGCTGCGAAATACCTGGCAGTGGTAGGTA  
GGTGTATATAACATGATGACACTTAGAATTTATAGACACTTAGAGCATAGTTTTTCAAATATTTTGGCTGTAAATCAATAA  
GAGATAGATTTACATACAGTCTATACAGATGTACATTTATTTATATGTATGTATGTAGGCATAGCTTAAGCAAAAGT  
GTCATGAACAATGTTCAACCTATTGCACACAATGTACTTTCATGATTGTATTCTCTCTTTTATTGAAAATGAGT  
CTGGTTTGTAAACCCAGTAAACACATAACCTACAGTTTGAAAAACCTGATCTAGAGGAACATCCAGTGGGTGCTCTTG  
AGTTCTTACGCATATCCACATATCATCCGTATCATGATGTTGTTGGCCATCTCAGTTTTATTGTTGAGGCATG  
CCTCTTCTCATCTCTGACAGAAAAAAGAAAAAGAAAAAGGAAAGAAAGCTCAGATCAAGAACTAACACC  
TTATCTTAAACATATAATCTCTCTTTACCTTATGCTCTTTCCTAATAACTATTCTTTTTCGATTGTCCAAAAGAAAC  
CACTCTAATAACTTATAACACCATGTATTAGAAATTTAGAAACCATTTTGAAGACAGTAAAGATGTAAATTAATGGG  
GGGACTAAATATGTCATGGATAGAAAGACTATTTATATAATGACATCAGTTCTCCCATAAATCAATGATATTTCAAT  
AAAAGGGTCAACAGTCTTTATTTTATAATGGAGACTCACAACTTATTCCAAAATTTATATGGAAATGCAAGTAGCCAA  
GAAGAGGCAATATAGCCCTAAAGTAAAAGAACCGGAGAAAAAATTAATACTATCTGATATCAATCTACTATAAAG  
TACAATCTTAAGTGTGGTACTGACACAAAGAAATGGTTACTGAGTGATCATATACATCTTTTGTGATGTATT  
TGTATGTATTTGATATTTTTGTATGCTGTTGCAATTTTATTGTTTTGTAAATTTTTACCTGTGCAAGTATCAGAAATA  
CAGTTGATTTTTCTATCCAGCAAACTTGCTAACTTTGTGGTTAATGGAAACACTTCAGCTATAGATTCTTTTCAATAA  
CACAATCACATTGTCTAAGAATATTTTTATTTTGTCTATTCTTTTTCAATCCTATGCTTTTCTGTTTTCCCCCCTT  
GCTTTATTGCTTTGGCTGAGATTTCCAGTGTCAAATAGAAATGTTGATGGTAAGCATTTTTTCTCATTCTGATTTCA  
GAAGAAAAGCTTGTAGCATTTCAATATTGAGTTATTTTTTTGTGGTGTAAACAATTTTTTTGTAAACACCTTTTATT  
ACATTTAAAGAGTTTTCTCTGTTTCTAGTTTGTCTAAGAGTTTTCTGTTAGACGTTAAATTTTATCAATGGCATTTC  
TGAATCTGTGATATAATAGAAATTTCTCCCTCATCTGTTAATCTGGTTAACTATATAATTAATTTGATATTTGAATGTT  
AAACCAACTGTATTAGTCTCCAACTTGTAGTAATAAAGTAAATTTAGTTACACTGTGTTTTCACTACTGGATTGAGGT  
GGTTAACATTTAAGATTTTGCACCTGTCAATGTAAGAGAGTTCTGGCTTGACTTTTTCTTTTCTTTTAAATACTTTGTTG  
GGTTTTGGTGTAAAGGATATGCTGACTTCATAATAAAGTTGGGAGTGGTTCTGTTTTCTCTCTCTGTAAGTTTTA  
TGTAAGATTACTGTTAATCTTCTTATCTGTTTGGCAGAAATCAACAGTGAATCGTCCATTTTATATAAACAAGTTTTA  
TTTGCTTAAGGTTACTCAGAATATAATTTTAAATATATCTGAAGGATCTTCAGTTAATGTCCCTTTTTTCAATTCAGATAT  
TGGATATTTGTACCTTTTGTATTTCCTCCTTTTCACTGAGTCTCACTAGGGGCTTATCAGTTTTATTAGTCATTTCA  
AAGAACCACTGTGTTGGCTTTTTTATTGATATTTCTTATGATGTTTGTAAATTTTCAATTTTGTCTTTTAAATAATTT  
TCATTTCAATTTCTTTCTTTTCTTTTGGACTTAATTTGCTGTTCTTATATAATTATAATTATATAATTTATTGAAATATAT  
GTTAAGATAATTGATTTTTTAGGCTTTATTCTCACTTAATATTTACATTTAAGACTATACATCTCCCTCAAAGGCTGGAT  
TTAGCTATATGGCACAAATTTTCTACTGTAGGATTTTCACTTTTATTCAGTTCAAATGTTTTTCCAATATCTGTTTTGA  
TTTCTTCTTTGAGCTACATGTTCTTTATAAATATATACCTAATTTCTAAATATATGGGGATTTTCCAGTTGTCTTTTT  
GTTATTGATATCTAGTTTAAATCCACTTTGGTCACTTTAAGAGAATTTGAATTTGCCCATTACTAGGGCTGTGTTCTAT  
ATATGTTGAAGTTTTAAATCATGTTGTTCCATTTTCTCTATAACTGGTGACTATTTTCCCACTTATTAGTCGTTTAC  
AAGAGGTGTGTTTAAATGTCTTATGATTTGTGGGATTTATCAGTTTTTGTAAATTTCTGTTCAATTTTGTCTTTTAAATAATTT  
AAGCCTCTGTTATTAGGAGCATATACTTTTAAATATTATATCTTCTAGTAAATTCAGCCATGTATTTCTCCTCTT  
TATCTATTAATGTTTTGTCTTAAATCTACTTTGTATGGTGTGAACATGGCTACTTCAGCTTTATTCTGGGGTAGTGCC  
TGCATAGCGACCTCTTTCTATTCTTTTCACTTCAATCTTATATAATTAAGAAATGTCTCTGTGAAGAAACATATAGCT  
TTGTTTTAATACAGCCTGGCAAATTTGCTCTTTTGAATAAATCTTAATGTTTGTGATTTATGTAATTATTATATTTGTG  
TTTTGTTTTAAATCTATCATTTATTATTTGCTCTCCATTTGTCTCATCTTTTGTTCCTCTTTTAAATCTTTTTTACT  
TTCTTTGTCTTGAGGTTTAGAAAATTTATTATTTTCCACTTTTCTGCTCTGTTGACTTCCACCACCTCCCACTTA  
TACACTTCTGTTTATGTGTTTTTCAATTTGGCATCAATATTAAACCCCTCAGGACATTATTATCAAAGACAGTCAATATCT  
ATTTAGATATACCCACATAGTTAGCCCCCTTTTTGACTCCTCGTTTTTTCTGTATCTCAGTTTCCAGCTGCGATCATT  
TCTGTCTGCCTGAAGAGTACCTGCAGTGCTTCTTGAGTACGTGAAGCTGCTGAGGAATCTCTCAGCTTTTATTTTTTC  
TGAAATGTCTTTATTTTAGCTTTGTTTCTGAAATACATTTTCACTTGGTATAGAATCTAGGTTGAATTTCTTTTCC  
TTAGGCATTGGAAGATGTTTCAATGTTTTCTGCTTCCATTGCCATCCAAAGTCTTCTAAACTTCCCTAGGTAGGTAGG  
TAGAAATATTTAACTCAAAGGATGAATAAAATGTATCCACAAACCCATACCTCTTTTTTAAATGGGATTTAAAGTTTA  
TAGATATTTAGTATAAAGTATTTTACATCTGCAGATGTAATGCAGATGATCAAAGGAATCAAGTATTTGATGATTTCAA  
AATAGAGAGCTTTGTTTTTACATATAGACTAAGGTTGGTCCAGGACTATCAAACAAATCTAGGAAGTATTTTCTTAAC  
TCTTGAAGAGAGAGAGAGGGAGCATAAAATGTACATAAACCTAAGTTAAAAGAAGTATGTAAGAATGTTAAAATATA  
TGCAAAAAGCATATATGCATATATTTGCTTGAACCTGATTTCCACTGACTTGGAGTAGTTCACTCTAAGAATCTCA  
TGTATATTTATTTTATATCTTTCTCATTGTGAAGTCATTCAAGAGATCCTGCCTGTATGTGTTTTCCAGATAATTTA  
CACTTTTATTTTACATAGATGTTGATTAGCTGTGTTTCAATGAAATTTCTCAGTTTGGGTATCAGTTTTCAGCAAAA  
CAACTAAATGTGACACCTTCTACTGAGCATATTGGGTCTATACGTGTGCATTTGACTTACGACTTATATTTTCACTTA  
AAAAATATTTTGGATACAATATTAAATCTTTTAGCATTAAATAGAGTGCTTGAATATGAACCTTAGTGCTTTTACTTTT

Fig. 6.25

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AAAATATTTTAAAAATTTTGATATTTAAAAATTTGATAATTTTAAAAATATTTTTCTGTACTAAAAATGCACTACAATATAA  
TGTGACAATTATGAATATGGATTTTAGATTAAGACAAACCTGGGCTGGAATAGTAGCTCTGTCTTCTACTAGTTGTGTA  
TCCTTGGAAAAACAACCTCCAACCTTCTAAGCATTAGTTTCTTATCTGTAAACACAGGGTCCATAATTTCTACCTTACAA  
TGCTGTTTTAAGAATAAACGAAGTGGGAAATGAGTTAGTATCATATTCATATATGCGAGCCATTATATTATTATTATT  
ATTATTATTATTAAATTTCTATAGTATGTTATTGCTTAAGTTTGTTCATAGAATAATGTATTTGGCAAATAATATTCCAG  
TAGGAGAATTATTCTTATAAAATAAATAAGTAACCTTACTTTATTCTTTAGAGTTTACCAAGATAGGTATATTAGTG  
AACATGGGAGTCAACAGCNTATAATAAATTCTGTATTCTTAATTTAACAAGCATTATTTAGAGTCTCTAACAACAGCTT  
AGCAGTGTTTAAACACCATGGCAGGGCTGGGCATGGTGGCTTATGCCTGTAATCCCTCACTTTGGGAGGCCAAGGTGG  
GAGGATCACTTGAGGTCAGGAGTTCGAGACCAGTGTGGTCAACATAGCAAAGCATCGTCTCTACTGAAAATACAAAAAT  
TATCTCGGCATGGTGGCAAGCACCTATAATCCCAGCTACTTGGGAGGTTGAGGCAGGAGAATTGCTTGGATCAGGGAGG  
TGGAGGTTGCAGTAAGAACTCGCCTGCACTCCAGCCTGGGCGACAGTGAAGACTGTCTCAAAGAAACAAAA  
CAAAACAAAAACAAAAACAAAAAATACCACGGCAGGAGGAATTTCAAGCATGTGAAGCTGTTACCAAGGATAATTGTG  
CCTCCATCACAGGTGTCTGCCTCTCCCATCTCTGCTGTGAGTGTGGAACCCACACAGTATCACTTGTCTGGGTTTTG  
ACAGTAGCTGCCTTACCCTTAACCTCCATTTATTGTCTCTCCAATCCATCCTTTATACTTTTTCCAGAAATTATCTTT  
CTAAACAAAAATCATGCCATCATCATTACACATTCATAGACAGCTGTGTCTGTGAAAACACTTCAGCCTCATTAAG  
ATGTAAGGCCCTCCGTACTCTTGCCCTTCCAGCTGTATCACCTCCTGTTTTCTTTCTGTCAGCCTATACTCCGGCCATA  
GGACTAATTGCAAAATCTCATTAGTACCGTGTCTTCCCAGCTGTTATTTTAGCTAGACATGTTTTTTTTAGCCATTTCT  
TGCCTCTCAAATTTGACTCATTTCTTTAAGATATAAGAGAAACACCATCTTATCTATAGTCTCCCTAGATGTAGAGGAT  
GAATTCGAGTGTAAAGCAAGAGGTGGGCGTTGTAGTGTCTAAGGTAGGAGACTAGGTATAGAAAGAAACCTTGAG  
ATGGAACCAAGGACAGAGAACTTTTGCAAGTGTCTGTCTGTGGGCTGCCTGCCCTGTCTTTCAGCTGGAAGTGGT  
TCTTCTCTTCTGTGTTCTCTTCTCTGTATGGGCTGTGAGAATTATTGCATGTAGGAAGCCAGAGAAATGTCTCACTGTT  
CTCCACAGCAGCTGTCTTAGGGCTCTCTTACTCCACTCTTTTTTGATTCCCTGGTCTCCTGCAGAGCCATTTATTGTCT  
TGGACCTTCCCTATACGTTGTCTTCCCTTAGCTCAAGGCCTGGCCTCTCCTTATCTCTCCTCAGAGTTTGACTTCTGA  
TGGGATCTGTTGTGCTGGAAGTACTGTGATGTTTCTCTTCTTCTGCTTCACCTATGGGTTGGTCTCCTCAGCCCTTAT  
ACTGTTCCCACTGGCAGCCCTGACCCGATTAACTCCCTTTCATCGTCTCCATACCCAAAGGTCTGTCTTGGACC  
AGGGAGGCTCACTGGGCCAAGTATTCATCAAAATGTTAATAAATAAACCTAATTTTAAAGAAATATCTCCAAAGAG  
TGTAAGCTTCTAGGAGACTGAGTACAAAAAAGAAAGGGGTGGAGCAGGATGAAAGACAGAGTATGAAAGAAAGCTGCAAGAAAA  
GGTCAAGGTGAGTGAAGGGAAAGAAAGATGAAATGAGAGAAAAATCCTAGGAGTCTTAGCATTGGAGGGGGAATC  
AGGTGCGAGAAATGATCTAATAATAGTTGAATGGAGAGAAATCAATGTATGGTCAATCTTATTATCACAGATTATGT  
GTTGCAAAATCCACCTACTTGTCTAAATTTATCTGTAATCCCAAAGCAATCCTTGGCGGCTTCTGTCAGTCAATTGTG  
GACGAGCGTGAAGCAGTGAAGAAATTTAAGCAGTGGCCATGTGATTTCAGCTGAGGTTGAACAAGGGATGCTCAGCC  
ATCGTGTCTCAGCCCTCATGCTGTAAGCGAGGGTCTTTCCATGATACGTTAATGCTGTGTTTTTGAATCTTGTGTT  
TTTCACTGGTGATTTTGTCTATGTGAATGGCTTCCAAGCATAGTGTGAAGTGCTCTCCAGTGCTCTAAGCACAAGAA  
GGCTGTAATAAGAAGAAATCTGGCCAGGTGCCCTGGTGCATGAGACCAGCTGGCCAACATGGTGAACCCCATCTCTA  
CTAAAAACATAAAATCAGCTGGGCTTGGTGGTGTGCACTGTAACTCTAGCTACTCGGGAGGCTGAGGCATGAGAATA  
GCTTGAACCCGAGAGGCGGAGGTTGCACTGAACCGAGATCATGCCACTGCACTCCAGCTGGATGACAGAGCAAGACTG  
TGCTCAAAATATAAATAAATAAATAAATAAAGAAAAAGAAAGAAAAAAGAGAAATCTGCATGTTGGATA  
AACTTTGTTCAACATGAGTTATAGAGCTGTGCGAGGTTTGTAGTGTAAATGAATTAACAATATATATTAATAAAG  
CTATCTTTAAATAGAAACACAAAAAACAAGTTATGTTAGTATTAGGTGATGAAATATTGTGACCAGAACTTGCAG  
AAACCTGATCTTACATTTCCCTGGGAGCAATGGTTCAGTATTGCTAATTCAGTGTCTCAGTGACTTTATAGAATGT  
AACTGCCACAAATAACAAGAAATCAACTCTGTAAACATTTTTGTTGGTCAATGGATATGCATGTTTAGACATTTTGTAGA  
ATTATAGTCAACCAAGTGAATGGAACCTCTTTTATTGACTTGGGAAGTTGCTCTATTCTCTCTGTTTCAAACAAA  
ACTCTAAATAAAATCCTCTTTTGTCTGTTTATTTAGCAGATGTTACTGGTGTACTGGAATGTGTTGAGTAA  
GTTAGGTAAAGTTGACCTAGACACAGTTTTTGTCTCCAAGGAATCTCAATTGATCATGGAAGACAGGAGATGTGTGTA  
ATCAACAGTATTGACATTAATTTGTATTCTTGGACAGGTATCGACTAGAGTCAAAGAAGTTTTGGCTGGTCTGTAAC  
AACAAGGAACCCCAAGTAGGTTCAAAAATAACCATATTTGTCATAGAGTAGGTGTCTACAACATGCTAGTGAAGGT  
TGACATTATCTTAGAGCTTCCGGGATTTATAGATGGAAGGGATCTACAGGCCAGTATGTGACAAGGACCTGAGCATG  
TTTAGATGTAGAGCTAGAAGTGAAGCAAGCCTCATGGCTGAACTGAATCCTTTCCCACTAAACCATACAGGCTCTA  
TGCGCTCGAAGTATTTTGGAGTCCCGGCTTAAATAGAGTCACTGTTCCAGAAATCCACTTAGGTGAGTGTATATA  
AGTCAGTCTGAGGTTGTTCCAGGATGAGCTCCAAGGGGTCTGTTTTGCTGTATATGAATATTTTTATAGAAGGAAGCTC  
ATAAATTTTCAATGTGATTCTCAAAGGAGTTCAATTTCAAAGGCTAAGAACTTCTGTGCTTATTCTGAGGTAACT  
GTGCACCACAAATACTAAATTTCTATTTGGGGTGGTGTCTTGACATTTGATTTTGTATCCCTATCAATCTAGCAGAAGAT  
TTTTTTTTTTTAAATAAAGAAATGCTCACTCTGGCTAGGATGTGGTGAACAAAACTTCTATATTGTCTAGTGGCAGT  
ATAAATTTGATGAATTTTCTAAAGACATTTTCCACTTTTGCACCAGATACCAAAATTTGCTTTCAATAATATATT  
CTAAGAAAGCAATAAAGAAAGGAAGTAATTAGAAATTATGTATAAGATATTTATAGCATTTTGTGTTATAATATGAA  
AACTAGGAATCAAAGTGTCTAAGAATTACAGTTTTTAAATATCACTTAGGCCGGGTGCGGTGGCTCAAGCCTGTATCC  
CAGCATTTTGAAGGCTGAGGCAGGTGGATCGCCTGAGGTGAGGATTCAGAGCCTGGCCAACATGGCAAAACCC  
TGTCTCTACTAAAAATACAAAAATCAGCTAGGCATAGTGGCGGGTGCCTGTAGTCCAGCTACTCAGGAGGCTGAGGCA  
GGAGAATAGCTTCAACATGGGAGGCAGAGTTGAGCCGAGATTGTGCCACTGCACTCCAGCCTGGGCGACAGGGTGAAA

Fig. 6. 26



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CTCCATGTAAAAAATCACTTAATATTATGAAAACTGTTTATGACAAGACATGATGTGAAAATAATCATGGCA  
TATATAGCATAATCACAATTTGTTTATGTGTGAACAGAATAACATGTTAACAGAGGTTATCTTTTGCTAATNGGACTAG  
AGGTGTTTCTTTTCTTTTATTTTCTTTTGTATTTTCAAATGTCTAAAAGACTATATATTTTATAATCAGAA  
GAAATATTGCAACCATATTTTGTCCANTTGAACATGATTTACTTACGGGAAGTCTATCCTTGTTCCTTAGTTTCTA  
CATTTTAAATGTCTCATCATTCATTTTGGCTGAAAGTTAAATGCAATCTCAGTTATTTACAGTTAAATCAATTACAA  
GCCCTTCTCTTCCACAGTATCATTTTCTTAAACCTTCATACTCAGCCTCCTTTGCAACTCTGGCCTCTCTTGCTTT  
CCATTCTTTTGTCTTTCTCTGATTAAAAAATACTAAATCTGTCTGCTTTCTTTGACAGCATTAGCCTTTT  
TCTCCTCTGCTCAGAATATAATTTTGTCTATTAGTTTCAAATATTTACCAGTGTCCCTTTGTTTCTTTATCCTGG  
TTTTAATTTGTAAAGGTAGAGGAAGCATTGATGGAATAGTCTGTTCCAAACCTCAGAGCCTCAGTAGTCTTTGTCAT  
TAATTAAGATATGATTCTTTTGGGATTTCCCAAAGTATTTTCCCATTTATATCAGGAACACATGTGTATATGTGCA  
TACATAGGGTATGATGAGAATGAGTGTATTACGTGTGTCATGTATGCATTGTTTGTGTGTCATGTTGGTGCATACA  
TGTGCAAGTTGGTGTGCATTTGTGAGTGAATACATGTTCCAGTTCTTCCAGAACAGGAACCTGTTCCCTTTCTATGTC  
CCTACGCAAGTAGACACTGCAATGATGCTGACTGCTGTTTGCCTGTCTCTGTATAGCAGCCTTTCCAGAGCTTGCCATC  
TGGATCTCAGACAGTATGACAGAGGAGAGGAATGTTCTAATCCACCCTGGTACCAACAGGCTGGCATCTGTACTTTGAAA  
GCTTTGATGAAGAAGATGCAAATGTGTTGGCTGTGTGGGCTTTTTCAGCTGCTTCTGACTGGGCTAGAGACAGGCAGC  
ATAACTTTTAACTCTCTCCAAAAGCCTGCCAACTGGCAAAGAGATACATGTATTAGATAAGATGGTGGATCTCGATTTAT  
ATATGTATGAATGCAGACTGAATTAAGATGGCACCTTAAGGGAGAAGCCAAGGACCAATCAGGAGACCTCTAATCTGA  
GTCAGAAATCAAGGCCAGGATTTATAGGATGAACATTTTAAAGTGTACATTAGAATGTAAAGTAGGTATTTGTAATTGA  
AGTACTATGCTTATTTTATTTTCCATAAACCTAAGGTCTGGATTCGAAGTGGCCTCAGGCTATATCCGTCAGCAGTGCAG  
CTTGTAAATTTGCTGCTTAAATCAAACCTATGATGAAAAGAACAGGCAAATAACACTGTCTTGCAGTGTGCAAGTCCC  
GTGGCTGTATTATAGAGTGTCTCAGCTCAGTGTTCACAGTGGAGAAGAACGTACGTTGATATGCTTTCTGGGTTTGAGA  
GCTCTTCTCTTCTCATCCAGAAGACAGAGCTGGGTAGAGAAAAGGATAACCAGCAAGACAAAGGCTTTATCCCAATATT  
ATATGTTTTAAACTCAAAGAGATATGGTGAAAATGGGACTTTATTAATTTGCTGATTGGAACAAACATGCAAATTTG  
TACAAGATTCTTAAATGTGCCAAAATGGCAAGGAGAGAGCCCTGACGAGCATGGAGAATAGTGAGTAATGCTTATGTCC  
TAACAGTGCCCTTGCCTTCATTTGACCTTTTGAAAATATTGTGAAAAGTCAACCTTTTCTATTCTGTCTGTATAGTCTT  
ACAGTGTTTCTCTCTTTTCTCCCTCTAGGGAGTTATCCAAAGCCCCCTTCAAGAAATGCTAGCTTTTCAGGAATAA  
TCAATCAAGCACACCTTTTGAGCAAATGTAAGATTATGTTTCTATTTAGATATTTGATTGACATTGTATCCCTTT  
ATTTTGGAAANAATGAATGTCACCTACATGCAGACAGATGAGGCATTTTATGCTTTTGTGGGGGAGGATAGGTTTAG  
GGGAGCTCTCCCATTTGCAACCCGGCTTTAAACCCACGTGGCATGAAGAAATCAATTAACAGACAGAACTCTTCTG  
GGATTGGGAATCTGGCTTCTCATTTAAAGAAATATCCCCATTTTCTAACCATAATAAATTTTAAATTTTCAAGTAAAG  
CCATTACGTCAATTTTAAATGTCAAATACATTTTAAAGAAAGATGCAGACTGTTGAAAAGATGGTGGAAATGATTACAA  
CCTAAGCTTGGAGCTTACTGAAGTCAATCAACTTCAACCTGGAGCTTGCTGAGTTCGACTGCACTTAGATGGTTTGTG  
CTTTAGTTTCCCTCTTTTGTGTAGCAGAGGCTGTTTGTGTTTACCTGATCTTTTGTGTAGAGAGAACTGAACTGCCTGA  
GGGACAATACAGTGCACCTGGAGAGGGATGAAATAAGTCTCAAGAGCTGCTTGTACTATACCCTCAACCTCAACAGCA  
GATGTTACAGAAGTCTTTTAAAAAATGTTGCCTTTACATGTCTATGCTAAAAATATATACCTAAAAAGACCTAAAAA  
AAAAACCTTAAAGAACTAGAGAAGCAGGCTGTAGTTATACAAAAGCTATATGCAAGATCATGGAAGCAAAAAA  
TGCATAAAGACATATTAGAGCTTTCTTAAAGTCCAAGGGAGCTTTTGATAATACATTCAAAACATAAATGGGAAAGTCA  
TCAGAGAATTGCATAGTCCCCAGGAGACTGCAGAAGGCTTTGAAATGGATTTAATAACATTGATGGGTCCGATAGGAAG  
CCCTTATTTCCCTTTGACTTATCATCTTTCTTTCTTTTAAAAATTTCACTTTTTCAGGAAATAGTTACATGATCAACTCTAC  
CTGGCTGACTCAAAATTTGGTTCTCGGTTTGAACCTAGTTATCTGTATATCTTACAGCTGTCCCTTTCAGTTGCTTATC  
ATGTGACTTGTCTATTCTGACTGGGTTTGAAGCTTCAAGAGTCAAGAACACATCTTTCTATCTTTGGAATTTCTCTCT  
GTAATTTTGATACCTGATTGTGTTTGCAGATGGTGTTTAACAATGTTGCCTGGCTCACTGGATCTTCCAGATTTTA  
AAAAAGTTAAAGAAATGATCTTCAACTCTGCTTCCATTGTTAATATTTATGTGCTATATTTGATAAACCCGTAGAAG  
ACCAGATAAGACAAAAGCAGGAGAAACAAGTTGTAGATACAATAGTGAGCGTGTAAGGCAATTAATAATGCCTTGAC  
ATGAATAATAACATACCAGTAATAAAGATACAACAACCTTACGTTTCCATAGATTCTTGATTCTCTAAAAGCACTTT  
CATATAATAAAGGACAGAGGGATAAAGGGAGGAGTAAATATAAATGCAAGGAATACCAAGGAATGTAGACATGAAAAA  
GCAAGAGGACCAAAAGCAAGACAAAAGAAATAATAGCCAAGAAATAAAGAAATTTGAGGGAGAACTTACTAATAACTTGGAA  
CAGTTGTTGGCTAAACAGCACACATAGCAGAGTATCAAATAAATATTGACAATGTTGGTGTCTTGTAGTGAAGTAAT  
ATCCTATAGACAGAATACTCTAGGATATTCTATAGACAGAGTATTCTGTCTATAGGGTATTCTGCCCTGTTTATGTTTT  
GTCTTGTTTTCTGCTGAGTTATTAGGGAAAGGAGTATCGTGGATTCCCTCACTTTCTTTCTCTTCCATTTTTATTCGTG  
ATGGTTAATATTGATACTAGTATGGCTATCTTTACTCCAGATAGTCAATCCACATCATCAAAAGATATGGACGTTTGA  
GTGATACTCAACTTCAGTAGCTTAGTTTCACTGATTTTCAAAAAGCTCAGTTAGGCTTGCTGCTGAGAGCATAAGTGAAT  
TTTGCCTTGTGTGAAGTTCTAAAAATTTCTAACCTTAGGAGGAGGCTCAAAATTTATGTCTATAATGCTGAATAT  
AGTAACTTATTATAAAGAAATTTCTAAGAAAATAAGACATATCAACTATGTTATAGAAGTATTAATTAAGTGAAGTGA  
AAAAATACAGATAGAAAAGTTCTGCCTGTCATGTGCTAGAGGCTACAAGAGATCCCTAAAAACACTTTTATTACTGCTT  
TGAAGGGATAAGCTCCCTCCAAAGCATGGATCAACTATTTTAGAGATTTAGAGATTGACACTGCTGTTTTGGCAATAA  
TTCTACCTTCATACTTTTCACTTCTGGATCAGCACAGAACTCTCTCCTTTGTGAGATTGAAAACCTGTAGCAGGGGGA  
CAGCCAAGATGGCCGAATAGGAACAGCTCTGGTCTACAGCTTCCATCAAGCTACCAATGACTTTCTTACAGAAATTGGA  
AAAACTACTTTAAAGTTTATATGGCACCAAAAAAGATCCCGCATTGCCAAGTCAATCCTAAGCCAAAAGAACAAAGCT  
GGAGGCATCACACTACCTGACTTCAAACCTATACTACAAGGCTACAGTAACCAAAACAGCATGGTACTGCTACCAAAACA

Fig. 6. (27)

[illegible]

Fig. 6.28 -



GGTTTGTAGATCAGCCTGGGGAACATAGTGAGACCCCTGTCTCTACAAAAAATAAAAAAATTAGCCAGGCTTAGTGGCAT  
GTGCCATATGATCCCAGCTGCTTGGGAGGTTGAGGTGGGAGGATCACTTGCAACTGGGAGGTTGAGGCTGCAGTGAACCG  
TGTTACACCAGCTGCACTCCAGCCTGGACAACAGAGCAAGATCCTGCCTCAAAAACAAAAACAAAAAAGAA  
AAGACAAAAAAGAAATTGCAAGCGGCCAATACATAAGAGAAGATGCTTAACACCTAACCCCCCAATTAGCATTGTGATTA  
TAAAGATAACAATGCTATCATTTTCCCCACATCATTTTGGGCAGAAATGTGAATGGATGGTTAACTCGGTGTGCCTGTGA  
GTTTGTAGTAAATGGATGCTCTCATACAACCTACCTGATACACACCTTTTGAGGCGAGGTGGCTGATACCTTGAATATG  
GAAATGTATAATCTTCTTGGCCAGAAATCTGGGTCTAGGACTTATCCTAAGAGAGCAACTATGATCAAAATGTAAATAAC  
ATTTATGTAGTATGTTTGCAAAAGCATATTTCTAGGGGAAAAATGAGAAATAACTTTAATGTTTTATCAATAGAGAACTGCT  
ATAGTAAATTATGATAAAATACCTACTGTGAAATCCTGCATAGTCAATAAAATGATGGTGTAAAGCTTCATATATTAATG  
TGAAAAATTATTTAATGGTACAAAACAGGTTATGAAACACAACAATCACATTTCTATACAGTCATATTACTAGAAATAT  
GGGAAGTTGTTAAATTTAAATCTGAACAGTTAGAATTTTACGGCTACCTTTACTTCCTTTGCTATTTAACTGTTTCCTCTC  
CCACCTATCAACTCTATGTCCTTAGGGGAACTTATTTAACCTTTTCTCACTCTTGGTGAAAAATGGAGATAATACCAA  
CTTAGAGGTTGTTGTGAGAATCAAGCAATAAAATACATGTCAAGCACCTAGTAAAAATGTTATTTTGATTTTTTTTTTGT  
CATACACAGTTTCTCTTTTTCTTTCTTATTATGTGAGTACAAAACAGCTGTGTCTCTATGCCCAGATTCAAAGAGAGAA  
CTAAGTGGGCTTTTGAATAACTTCCACTTATTTTAAATGCAGGGAAAGCTCTAGTTCCAAATATGTGGAAAGTAAATTTTC  
CTAAGGCTGCAATGTGTGAGAAAAAGACCATATTGAGTCATTGTTTTCTGAAGCCAAGACAGGAGATTGAGAGACGGAT  
GCTGATGGGCAGCCTAAAATAATATTTTATTCTTGTCTCCTTAGGCAGTTTAAAGCCAAGTCATTTTGGATAGATCTA  
CAGTTTCCCTCTCGGTTTGAAGAACAAGCTTTTGTTATTTATGTTCTTAAACAACAGCGCTTGTCTCTATACTCAG  
AGCGTGCAAGCAACAGAAAGATTTCTGAACGGCCATCCATTTATGGTGAGGAGTCAGTCCAAGAGGTAAGTAGACA  
TACTCAGCTGCAACCATCTGCAGAGGGCCCCATATTGGCAGCAAAAGGAAATAGCCAAGACTCAGAGGAGCACACAGCC  
AGTCAGGTTTGGGATTCACTTCTCTGATAGCTGTGCCAAAGTTGGTGGACTCAGCCATTCTGAACTCACTGTTCACTTG  
GGGCTGCTTGTGCAACAACAACATAGCCCTGTTTTGTTTCCATGTCTAGGCGAGAAAAATAAAATGGCAATATT  
TTGAGTGTTTTTCATTTGGGAATTTCTGGTCCATAGATAATTTTTCAGATACCCCTGTGTAATCTTTTTCAGAGCTGTT  
GAAAACGTGGGAATAGGGGATAATTAGGGCTCAAGAGATTTTCTAATGGTTAAAGGATCATTAGAAGGACACGTA  
TATCCCTCTTCTTATTTCTCTCTCTGCACTAAAACAACCTCTGGCTGTGTACCATACTTCCGCACCCATGTGCAATTT  
CACTTAGCAAAAGGTCAAGTCTAAGTAGAATCTATGAAGTTGGGATTGATTCGTATTGGTAATAATGCTAGCTAGCAAG  
CATTGAAAATTTGTACCAGGTTTTCTGTTAAGTAGTCTGCATGCACATCTCAATGATTTCTTAAGGAGTGGTCCATAGA  
TCACTGGCTTTACAAAACCTGACGCATGGTGGTGGGTGTGGGCAATGAAAAGGCAGATTCCTAGATCTTACTCTAGATC  
CATGGGATCAGCATCCTGTATGGGAGCCAGGATCTACCAATTTAGCAGGTGCTTGGGTCTATCTTATGCAAT  
GACATTCGAGAGCCACTGTGTTATTTCTAGTGCACTGTGACTCAGTGTAACTGTCTTTCTTCCACTCTCTGTATTT  
CTGTGTGTAAATTTTCATGACAAAAGTTAGACAAAATACCATGGACTGAAGTTAGATATAGAGCAACTCATGTCTCTTT  
TAGTTGCTGGTGATTGCAAAATNTATCTCCATGGCCAAATGTCTTTTGAGGCACTATATGTGATATTTATCTGTATTGTG  
GGAAGGTTAAAGAAGTGAGAACTCTTCTCTGTCTTAGTGGTGGCCTGTGTCTGAGGAGTAGAGAGGAAGACACAGGGG  
CATGGAGGTGGGACTTACAGGTGTGGTACAGGTTGTATAATCATGATGGTGACCTGCATGGAGAAGGGAAAGCTTGAC  
CTTTCTCTGGCTCAGGGCTATGCAAAATAGGGCTGGGCCATTTCTGAGAGGGGAAGGTAGCTGATATGCAGGTGTGATT  
CCCTAGGGCCAGAAAGACCTGTGCTGCTTCTGCTTTTGTGTCTCATGAGGCTGAAATGTTCACTGGTGGTT  
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CTTATATTTTTCACAGACTGCTTTAATCTGCTACTCTGGGGATGGCACAAAAAGATTTAGTTGATGGGAGGGAGGTTA  
GGCCCTTTTGTGGGCCACAAAGAAGAAATCTGGGGAGCCAGGGAGACTATTCTGGGGGTAGAAGTGAGGAGGAAAGGCT  
CTAAAGACAAACTGGACCTATGTCACAGTTCGAGGGCTGTCTCCAGAATACATTGTTTTCTGAAATTTCTCCAGCCC  
CTTCCATCATTTTCTCTCAGTGAATGTCCAGTGCTGAATAACTGCCCTTAGTGCACAGGACTGGACTGCAGCAGTGC  
TGCAGGTGGTGAGGCTCAGTGGCACAAGTGGCTCTGGGAGGGAATCTTGATGTGGGATTCTGTAGCTGCACCAGCAGAG  
GGGGAAGAGGGAGATAATTACCACTCTGAGTCTGAGATCCCCCTACCCCAAGTGCATCTTCTGCCAGGAGCAGGAT  
CATTAGAATAGATGAGACTTAGTCTAGCTCATTTCAACTCCTTGGCAGGCCCATGCAAGCTTTCAAATTTCAAATAT  
ACGATCATTTCTAGAGACTATGTTGGGATCCCCGTGCATTTCTTTATCCATTTGTTGAGAAGGACCAGAGATGTCCTA  
ACTTTAGCCAAGAGTTTGTCTGTGGGTCCGATAAGCCTCACATTTGATTTTATTGGAATTTTAACTCTGCAGAAAGTAC  
CCTATGTTTCAATTTTAAAGCATTTTTTTTGTGTTAACTGAAAACATCCCTCAATTTTCCAATGTTCTGTTTGTCTCTA  
GTGCTAATTTATGTGGTAAGTGGTACTGGTTTCAATTAATTTACTCAGGAGGGTGTAAACCACTTTTCATGGAGAAGGGGTG  
GCTAGGAAGGGGTTTCTAGTGAAGGAATTCATTTTCTTGGTCTTCATGGTGGGTGCTGGGGAAGGGTGTGCAGTCAGA  
GGGCTGCATTTGCAGAAACATGGCTCTGTGTGTGAGCCTGGGTCTCAGGAATAGGAAGCAGGATAGGTGCAGTGGGTG  
GGTATTCATGTGACAGTGGAGGAGAGATAAGGACAAGATCATGCATGAGTAGTGAATGAATGAATGAATGAATGAATGA  
ATGAATGAATGAATGATTGTGTATAGAAGTCCATCTCTCTGGGTGGCTATTCTTCCACCAAGACAGACTCTGTT  
CTTTCTTCTGTCTGCTTCTTAGTGAGCACGTCTAAGTCTCAGTTGATATTTCTCTGTCTGAGAAATTTCTCATCAATGG  
GAGGAGAAAAATATAATTCGCTTCAACATAGCTCATATTTAAGCTGAGAATTCAGCATGAATTCAGACATGGTTCATGT  
ATTTTGGATAATCAGCATAGCTGTTTCATGATCGGTAACCTCTTTTTTCTCTCTTCAAATCGTTTTTGGTTAGGTTA  
CCATGACTGAAGATTAATGACTTCCATTATTTTTTTTTTCCCTCATGCAGGAATGTTTAACTAGTCTAAACTTTGTACCA  
ACTATCATATGAATCATGTCTACTGTTTACCCCTTGTGTGTCTATGCTCTGGGTTAGTGTCTTGCATGACACAGCAA  
AATACAGGACAGGGTTAAAGTGTCAATTTGAGAACCAGGCAAAAAATCATGATTAATGATGACCAACACACTTCACGT  
TGCTGTTATCTTAGAGGCTTTAAGGCAAAATCTTACTTACAAATATTAGTTGAATGCAATATGTGATGTTAGTAGACA  
CATTTTACCACATCTGGCAGTTTCAATTAATTCACCTTCATTTTTTTTTTCTTTTCTCTTTTTTTTTTAACTTTTTTTTTT

Fig. 6.29

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ATACTTTAAGTACTAGGGTACATGTGCACAATGTGCAGATTTGTTACATAGGCATACATGTGCCATGTTGGTTTGCTGC  
ACCCATCAACTCGTCATTTATATTAGGTATTTCTCCTAATGCTATCCCTCCCTCAGCCCCCT. CCACTGACAGGCCCT  
CGTGTGTGATGTTCCCTGCCCTGTGTCCAAGTGTTCATTGTTTCAGTTCACCTATGAGTGAGAATGCGGTGTTT  
GGTTTTCTGTCTTGTGATAGTTTGTGAGAATGATGGTTTCCAGCTTCATCCATCTCCCTGCAAAGGACATGATCTCA  
TCCTTTTTTATGGCTGCATAGTATTCATGGAATTCACCTTCATTTTCAATATTGTGTATATTATTGCACTGAGCTTA  
ATCCTAATAAAAAACAATTTTATTTTATTTTATTTATGTTTCTTTTGAGACAGGATCTCACTCTGTGCAC  
TGAGGCTGGAGTGCAATAGCACACCATAGCTCACTGCAGCCTCCAACCTCTGGACTTAAGTGATCCTCCACCTTGGC  
CTCCCAAGTAGCTGGGACTACAGGTGTGTGCTACCATGCCAGCTATTTATTTATTTGTTTCTTTTTTGCAGAGATG  
GGGTCTTGCTGTGTTGCTCAGGGTGGTCTCAAACCTCTGGATTCAAGTGATCCTTGGCCTTCTAAAGGGCTGGGATTAC  
TAAAGGGGCGAGCCACCATTTCAGCTGACAATTTCTTTTTTTTTTTTTTTTAAATTATACTTTAAGTTTtagggTACA  
TGTGCACATTGTGCAGGTAGTTACATATGTATACATGTGCCATGCTGGTGGCTGCACCCACTAACGCGTCATCTAGC  
ATTAGGTATATCTCCAATGCTATCCCTCCNGACAATTTCTTTTAAATGAGCAGTCACCATATAATAGGCTCAGTTCTA  
AGCATGTATTTGCCCATTTAATCTTCACACCAGCCTAGGAGGTAGTTACTGTGTGTGAGTCCCTTTTATATAGGAGGAA  
ACTGAGGCATAATGCTGTAAAGTAGCTTGTCTCAGGGTCTAACAA TAAAGAGTCAGAGCTGGGATGTGAACCCAGGTGGC  
CTGACTCCAGAGTTTCTACCAACCACCATGTTATACTGCTTTACATGTTTAAAGCAAAGATATGGTTTtagCATCAAT  
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TANTATGATTTTCAATTTATGCTTATAGGCTTAGGAAGATTAATTTAAACAATAACAACAAGAACAAACAACAATAACA  
ACAAAAAATTTCCCCCATGTGCCAAGAGCAAATTTTtagGTTCCATTTATCCAGATAAAGTGTGTTTtagTGAACCAA  
GAACATGAACTTTATCTTTATAGTGACCACAGACTCCCATCTCTAGTATCATGATTTTAAATTTGAATTAAGCATTTT  
TTTTTGCTTTGTTAAGATGAGGCAGGCCTTCTGTCTGACATTTTAAAAAGCAACTATTTTCTTTTCAGTTTACACTATG  
AGGCATTGGCTCCAACCTGTGAGCATTGAACTGTGAGCAGTTCCCTACCAGGAACTGGTTCCAAGGTCTAGGGTTTCC  
TTAGGTAGAGGCTGGCACTGTGAAAATAATGGGGCTCTTTATCCATGTACCTGGAAATGGAGTTAATACCCTGCCAGTC  
TTAGTTGATTTGACATACTAACAGGATGGGTCTGAACGTTTTCTATAGTTTACTCATGAGTGACTTTCTTTGGCTTACG  
TAAATGGCAAGGCCAGACAAATTAGCTTATGGACCTAGCAATCATTCTTGGCCAGATTTTtagGACACTTTTCAATCAA  
CCATAGTTGCTCTAATACCTGAGATTTGCTGACAGTCTTGGTTTtagGAGGGAAGAGCAGTGCTGTTTtagGACAAATTTTCTT  
TTATTGGGATCATCTTAATCTTGTGTTTGGGGGTTAAGATGAAGGAAATATGAGCAAGGACTGCACTCAGCTAGTTGGG  
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TGTTTCAGTGTGAGGTTGCCCTGCTATGTGACAGTCCAAGGACTAAAGATTCAATCCCCAGAAAAATGTGAGTCC  
CAGTAACATGTTTCAGGTTATCATGATTATTTAGTATTAGGAGGGAAGAGCAGTGCTGTTTtagAAGATTTCTCA  
TCATGAATGTGTTCTGGAGTGAACATCACTTACTAACAGATGAGCAGCTTGAAGTTGAGTCAAAACAACCTTTTtagTGT  
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AGTCTTCTATGGGAAATTTCTGGACAAAAATACAAATGAAATGACTTGCAGGCCTCAGTTTtagAGTATTGTTGGCTTT  
GTCTGTCAACAAATGGAGATTGAACATGGGAGTTCAAGGGGATTTAATGAAATTTTATTAAGGAGATGAGAAGCAGG  
GAGTCTGTGTTGAAAATTCATAAAGGGCTTGTCTTCCATCTCAGCCTGGATAATCTATGTTATCTCTGAGTAAAGGGG  
GTAACAATTTCAACAACCTGGCTTCTTTAGAAGTTTCCATCTCATATAGTCACCGAAGGCAGCAGCTGTCAAATAA  
ACAAAGGTTTAAATTAATAAAAACTATTTAAACAGAGCAGAAATATTCTTCCCTGGCTAGTCACAGATTGGACAATTCA  
AAGAACAACCCCTGGGGGAAATGGCCAAATGGAATTACTTTTCTGTTTTCTGTCTATTGCAACGTTTTTCTTTCTGGTG  
TCAAATCTCAAGTTGAATTCAGTCAATTATCTACAGCCAAAAAAGTGCAATATGTCTCTTCTGTTACTGTTTATATG  
TCACCACTAAATAAAGCAAAATTTCTTCTCAGCTTCTTGCTTAGGATTTTATAAGTCCACAAAAACAAATAAATAT  
TATGTATATTCTATCGTCACTATGAAAGCATAAGGATTGATTTAGTTATGTACAAGTTTATTGCCAAAGTTTTCTTCTG  
TTGGTGTGTTGTAACACTTGCTACAAAATGTATTAAGAAAACAGACAATTTGCTAAGGATTTGGAAGGATTTGTCATTGGG  
TTAAGTACATTAAAGTATCTAAGGGGTGTTGTTCTGTTTATGTGTATGTGATGTTTCAATATTTTGTGCTTTCTTAT  
TTTAGTTGCCTCTATAATCATTTTGACTTTAAATGTTTTCTGCAGATCCTTTAATAACTGCAATGTAGAAGTATGGT  
GTAACAAGTAATTGGTATGACTAACACTAAAATGTAATGGGAAATAAGGATACTATTGTAAGAAAACAAGAAAAACCT  
GGGGTAGGGGAGCAGTATTGATTCTCTTAGGATTCTTAAGATTCTGTGTCCTCAACCTTCTACCATGGAACATTCTT  
ATGTGGTCTAAGTGTCAAAGACCAGAGGAAGTGGGAGTAACTTATCTCTCAATTTTCTCTGAAACATAGATATTTT  
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GTGGGTGGGTGAAAAGCCTACCCATCTGCAAGGTAGCTCTGAACTGTCTGGAAAATCCTGTATTTTCTCCACAAA  
TGATCGTTTTAGTTTCAAGTTTATTTAGGTACATTAAATTTCTCCCCCTCAGACTTCAACAAATGATCCTGCACA  
CGATTAGAATAGGAAAATGTAAATAAAATCGAAGCATATCTAGTTGCCCTCAGCGACTTTATGCTTATCACTTTTCACTC  
TGCATTATTTCTACTAAAAATAAAAGAAAGATGAAATTAACCTCAGGCGTTTGTGCTGCCGTGCTGCCCTTTGGTTTCTG  
GGACGGCTCGGGTCCCGTAGCGCCGACAGCTGAGATTGCCAAGCCGGAAGAGACCTGTCTCAGGTGTAGCTGCGT  
TTTCCCCAGATCACCTGTCTTTTCCCTCCGACAAGGAAGCTGTGATTTTTCTGCTGGCTTTAGAGGCAAGTGATTCC  
CAGATAAGTAGATTAATGTGTAGAATATCTCATCTGTGTTGTTCCAGTGCAGCCCTTTTCACTTTTCCAGAGCCAGTTAG

Fig. 6.30

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ACTTGTATATGAGGAGCTAAGTGATTGGCTGGCTCTGGAGCTCAGTTTCATAGATTATAGCCCAGCGTACGAGAAGCACG  
AGTCCTATAGTTGGCGTACCCTGAGGCGTGCCAGTTCCTGCCTTAATGCATATGTAGTCGTAATTGAGTTCTGACACGG  
CCTTGGATGTTTTCTGTCTAAATAGCTGACATTGCATCTTCAAGACTGTGTGAGTAATCCTGATATTTTTTTTTTAAGC  
TCAGTAAATTAATTACATGCCCTGGGAGGGAGTGATTGTAAAGTAGAAAACTGAACTAGCAGATGATTCGTTTTTTAAG  
GTGCTATACTATGTGTATCAAGTTCAAGACGATGAATCTTAAAGCTTCTAAGAACTGGCAGGGTTATTCCAGCTTTGTG  
CCATGAATCACAGTCAAGCTGCATTTTGAAGGAGGCTGTTTGTATGCATTTGCTAGCTCTGTTTGTGTTTTATGGGGTCAGT  
AAAGTGGCAGAGGTCCAACAGGAGCAGGTTAAAGCAGGATGCTGGGATCAAAGCTTAGAGAGCACTTGAGTCAGGCAAG  
TTTTAAGTTTTCCACCCCCAAGCATCTCAGTCCAAAACAGAGCAAGCAGCAAAATATTATAATAAATGCTTTTGGGGA  
CAGGGGTACACAGCAGATAGGGCACAGTAACAGGAGAAATGTAAATGATGGCAGCAATACTTTTGTTCAGTGTAACTCT  
GCAGCCAATTGAAGACATACACTATGAATACTAAACATTTTTATATGAACAAAAATGCTCTTCAGTGGTTCTGTTTA  
TGTGTTAGAGGGTGAATGAAAAACCATGCGCTTGTGTAAAAAGCCTTATAAAAAGTACATTAAACACATACAGACA  
CAACCATAACAGAAAGATATGTGGATTGGAATTTGTGATTGGAGCAGATCAAATTAAGCCAGGGAAGCCGTTATTAG  
GTTTGTATGATTGCTGGGGGTAACCTCTGTTGCTGACAAGGTTTAGGATAAAGCTGGAGCAGATTGAAGTGGAAAACC  
AGAAAACATCAGCATTTTATTACCTTCTATAGCATACTGCAGGGTAGAATTAATACTGAGTATAGACTGGTAAATGT  
GAGCAGTTTACTGTTTGTCTTTTAAATCATTATTGATTCCCTAGCCTATCATAAAAAATAATAGGGCTTTTGCCTATG  
AAATTAGTGCTTAGAAAAATTTTTCTTCTCCCAAATAATTTTTTATACTTTTTCTCAATACAGCACAAAGGTAGGTTCAT  
TAAAAATAAAGGGGTTCTTTTTCAAGTTGCTTTTTGTCTAATTTTTCTCTTTAGACCTGTAGATACAAATGTATGTAT  
TTGTGCTATGTATAACTCTCAAGCATAAATCATTGAAACAGTATTTAAAAATCACAGGCTCCTGTGGCAATAATAACT  
TTAATAGCTATAGTTGGCAATTACTTGCCAATCTCTATAAAAAATAACATTAGTGGCTTTATTTTGTGACCTTAAACA  
ACTGGCATGATTTAGCCAGTAGGAGAGAAATATTAGTTGTGTTTTGCATAATTTTGTGTTTAGATCACACTGGAAATAC  
AAAGTTTTGTGTTAAAAATATTTTTGCTTTCTGAAATATTATCCCTTTCAGATCACACCAATGAATGAAGTTTGTAG  
AAAGAAAGAAAGTAGCCAACGTAGACTCCTTTTCTGTATCAATCAAAATATATGCAAAATACATAGATTTTTTAAAAATG  
TAATTTTAAATACATTCCTTTAGAAACACATTTACTTCATGAAGAAACAGTATAATGAGTTTCATTTATTGACCAGAATA  
GTGAGTTGATTTATTGAGTTTCTGTAGCCATAGACACGAATAGTAATGGTTGGCTCATTCTTAGCTATACATTCCTAAC  
TGACTGTATTAGTGGGAGAAAGGAGTGCATCTATAAAATAAATAATCCCATCCCTCAAGGTGGTCTGGAGCCCCATCT  
AAGAGTAAGAGTAGTAGAGTTGAAGCTGCTTTATCTGAATCAGCTCCTGACTTCACTCAGCTCCTCTCTTTTCTCTAG  
GTCCATGTGGCCCACTTGGTGTAGTATTACATCTCCTTCCACCTTTTATGCCTTCATTGTTTACATTACCTTGCTTG  
GGCTCTTATTGAGATGAATCACATAAAAAATGCTTAATTATCAAACATTAATCAGCTGCCTATATAATTAGAGGATGTT  
TAAAACCAAGGCTCAAGGAAATCTGTTGGGTGTATCTAGGAGTATTACGTCTTGATCGGTACTTTCTCTGGGAC  
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CTAGAGGTGCCAGGTGCCAGTGGACAGTGGGCTGGGGGCAAGGCATGGTGGGGAAGCAAAAAAATCTCCCAACAG  
CAATGTTGATCTTTCTTCTATCCACTCCTCTCAATTTTCTAAACCATTTTTGTCTAAGTGGAGTTCTTTTGTGCA  
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CATCATGAACCTTGCTAAGTGTTCATGAATACACACTGGCATTGGGAGACTATTAACACTACCTACTGAAGCAAGACAT  
AAATCCAAATGAAGAAATATAATTTTTTGTATGAATTACATTTTCCAGTGGGTTTTTTTTTTTTTGGTGAATTTTGT  
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AGAATTTAATAATTTCTTACTTTGTGTTTTCAAAGAGTTGCTGTCTACCTTGAGCATGTTTTTAAAAAAGCAGAACAAA  
ACGAATGAACAAATGTCCCTCTTCCACAGAAAAAGCACACCACCAAGGAGTTAAATGCCCTACATTTCTTTAAGTCC  
CTCCTTTTGTGGAGCTAGACACTGGTAGAAGAGGAGCTTCAATTTAATTTCAAGACAATCAGTGATTCACACTTAAC  
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CAGGCCATGAACGTTTTCTAAGCCTCAGTCTCTATGTCTTTAAATGAAATAATGATATATGTTCTGGTATTTTACT  
AGATTGGTGAATATCCACATCACATGAGAAAGTGCTTGTCAAAGAACATTGTAATGTGTAATTTGTAATGTGCTGTA  
CATGTACACTATTATTATGACTGTAGCTCATCAGCTAGGGTTAGGACTCTTTACTTCTAAAACATATTCCCAGTAATG  
GACAAAACCTTTGAAGCAAGAAAAATCTTCACTGTTTGATCCTAATGTTATGAAGGCTTTTGGACCTTACATTTGTTTA  
AGCTCCCATGAAGCTCCCATTTGGAGCTTCAATGCTGATCCATCTATTACTTGAGTATTAATAATACCGATAGGTTTAC  
TGTGATAAACGAATGTGGCATTTGTATGTGAAAACATATTTAGTAAACTTCCATGTGCCATAGTCGTATAAATATTACAT  
ATTGCAACAATTATCAGTATATTAATAAAAAATCTTTGCAAAATTTCAATTTTTTAAAAATGGAAAGTATCAGATATATTT  
CTTATTGATTGGATTGACTAACTTTCTAAGCTATGTTTGTCTCCCTCAAACAGGATGAATGTTCTGTTGGTTAAGCTT  
TCTTTCCACTTAGATACAGCACTAAGCCAATAGTTAGATAAGCATTCTTACAGCCTACATTTGGAGCTGCCAATGAC  
GAAGTTTTAGAGGACATATTTCTCTCACAGGAAAAAGTGGGTTAGGAAATTTAGACTGACAGATGTTCTTGGGTTTTTT  
TTTTTTTTTTAATTCCTGCTTGTACTCTCATTATTAATTTTTGTCTAAGGAAATAATTATGTAGGTTTTGAGGTGATGCT  
TATTCCTAGTAGTCTTTTCTATCTCAGGGATGCAATGAATGGTCAAAATGACCTTCTGAATGATTTGAAAGATCAATTAG  
CAGTTTTGAATCCCAATTTTGGGTGGTTCTGTTTCAAGAAATCATTATGCTTTTGGAAATAATGTCCATAGCTGCAT  
CCTACATTTTCAGTGGTTTTCAGCTCACTGCTGTTTATAGTTTGTATGATTTTCTAACAGCAATATTGTTTATGCTAAGCAG  
TTCCCATTTTACCTGTTGAACCTTTTTTAAAGATAGAAGAAATATAGAGGAATCACAAATAGTAAACGTTATTA  
ATGGAGTGGATTATCTCCACTTTTATCTCACACAGCTCACCCAGAAATTCATGAGAGAACTTTCTAGGAATGAACAAAT  
TTCATTTGTAGTAGTATTTGAAACTGGATCTAGGGCCATTGACCTGACTTTTTTGTGCCTTTGGTGATTGGATAAGAA  
CACTTCTTCAGTAATTTAAACTATAGTGAAATAATGTTTTTTTTTAACTTCTCAATAGGAATTTATTTATTTCAGCAAA  
AATCAGGAGTTAGGTGCTAGAAACACAAAGATGAACAATACATGGTTTCTCAAGGAGCTTATAACCTACTAGACATTT  
ATTTTCATGTTGGCAGAACTTTTAGGATAATTTCTCAAAGAAAAAGGGTTATTATGAGGTTGCTACTTTTCTCTCAAAAT

Fig. 6 31

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ATTTTCTATGTTAATAATGAAGGAATGACCAATCTGTAGTATATGCAAAAAGTACTGGGTAGAAATATATTAATTTTCT  
TGGCTGGGTGTGGTGGCTCACATCTGTGGTCCCAGCTACTTGGGATGCTGAGGTGGGAGGATCAGCTTAAGCCTGTCTAGT  
TCCATGCTGCAGTTGAGTCATGATTATATCACTGCAATCCAGCCTGGGCAAGCAGAGTGAACCTCTGTCCCCCACC  
CACCCCAGAAAAGAAACATAAAAAATTTCTTATAAAATTTTACTTTTGTAGAGTCTCCAGCCTTATTTAATTCAGTTAC  
CATATTTGACAAATAAATGGTGGAAACCAAGATGTTTACCAGGTTTAAAGTTTCATATACAGTAGAACTGTGACAGGAACCT  
AGAGTACCTGGAAC TAGAATCCAGATCTCTGCCCTTTTCTAGGATGTACTGACAATATATATTGCTACTTAAAT  
GCTAAAACAAAATTTATAAGCATCTATATATTTTGCAGCTAGGACAATTATCTACAAACATGATATTTAATGGAAGATA  
TGGTAATAACATCTGAGATATACAATTATGTTATAAAATCTAAAATCAACAAGAAAGGAATAAAGTTGTACCATTCCAG  
GAAATACATTTCCAGAGCTTTAGATATCCTTATTAGATTCTACATGTTAGTTTGGTGATGTTAACTGCCATAACATAT  
AAAATCTGAAATCTTGTGACTTAACTGAGAAGTTTATTTCTCACTCAATCAAAGCCTAAAGTGAGTATTCTTGATGGG  
CAGATTCTTCTCATTCAAGCAGTGTCTTGTGACTCCACTCTTANACCTTGTGTGTCACNACCAGCTTCTGGTG  
TCTGTGCTTTGGCAAAGGAGAACTCATAGAAGTCTGCTCACCTTCTATTGGCCAGAGCTTGGTCACATGGCCCCATA  
TAGTGAAAGGGAGCTGGGGCTATAGTCTTATTTGTGTGGGAAGAAATAAAAGTTGGTTGGTGATTGTCTTAGTTC  
AGGCTGCTGTAACAAAGTATCATCAACTGGGTGTCTTATAAACAACAGAAATTTATTTTACAGTTCTGGAGGC  
TAGAATTTCTGAGATTAGTGTGCCAGCCTGGTCAGGTTCTGGTGAGGGCTGTCTTTGGGTTGCAAGTGGCTGACTTCTC  
CTATTATCTTCACATGGCAGAAAGAGGGTGAGCTAGTCTCTGGCTTCTTTTGTAAAGGCACGAACCCCATTCCTGAT  
GGCTCCACTCTCATGACCTAATTATCTTCCAAAGANACCATCTCCAAGCACCAACACATTGGGAATTAGATCTCAGCAT  
ATGAATTTTGGGACGATATGAACATTCAGTCNACAACAATGATCCACTAAGCTATTTCTGCCATACCTTTTTTCTTTT  
CTCTTTTCTTTCTTCTTACTGTCTTTCAGTATGTCTATGTAAGATCTATGCCTTGTAAACCAATAAGGTAATGAAAAAAT  
ATAATATTTACCATCTGGAAGAAATAGGAAATGATTTTACTTTTAAATCTTGTATCCATATGTTAAAAAATTTCCAA  
GGCTATTTAAATATCACTGAACATTGTGATTATAGAGATTGCTATGATTTAATACTTATGCTTATAGTGAAAAAGTAG  
TCCTGGGATATTTTTCTCTCTTTACCTCACCCATCTCTCTATGTGAGGATTTGAATCCCTTGTGTTGTAGTTTAT  
AAAAAGNTGGGGAGAAATGAACAATTGTCAAGGAAGATGAAATGGCTAATCAAATTCATTCTCCATAGTTCTCT  
TGGGTATTTTATAAATTTGTCAGTAAATGCTAACTTCTTATTGGGGAAAACTGCTATAAAGTAAGTGTACAGGTAGGTT  
TTGGAGAAATTTTCTTGCATGGAGTTGAGCAAATGGTGCATCTAACATAAGCTTGGTTTATAGTTTCTGTTTTTCTCAGA  
AGCTAGAAGATTTTCTTCACTCTGAACCTTCTAGGGATCAACAAAAGTATTTATATCACAAATAAAAAAACACAGTT  
ACCTCTCAGTAAACAATTTTTTTTCTCAGATTTATTTCTATTTAAAAAATCTCTCCAAATCTGTTAATTTCTGTTAATAAAA  
CATCAGTTTCAATAAAAGTCATAAGCCTGTCAAACCAATTTAGTCTTTTATCTTGGATATAGTAGGTTAAATATTTT  
TGTTGGGTGTTAAGCCAATAATAAACTCAGCTATTTTAAACAAACCAATTTTCTCTCTATAAAACCAATTTACAATC  
AAGCTACTTAAGAAATAAAGACAACAAATAGAACTGTTTTAATCTTCATATCTGACCTAAAAAATAGAAGCACGAAC  
TCATGTCACTTCTCATATTTATCTGATTAGACTAGGAATGCCTAAAAAGAAATTTCCATAACTCCATTTACTTGTGTG  
TTTTTTCCCTAGTCTATTCCAAAAGCAATTTAAATACAACACCAAAAGAGTAAATATCTCAATCTGACATCTCTAG  
CAATCTTTTTTATTGTTGAACTGAACAATAATAATAGGCAATTTGATTTCTCACCTGAGGCACTGAAAACACTGAT  
ATGTCTCAGTTTTAAGATTCTGAAGATTATATTTCTATTTAATAGATATTTAAGTATATGTTATATTTCTAGTCTTT  
GAACTAAGGCAGTCCACATATAGGTATAAAGTAATGCCTCAGCATAGTGTAGCAATTATTGGTGCAAAAGGTTGGTGCA  
AAAGTAATTGTGGTTTTGTGTCATGAAATGGCAAGAACTGCAATTACTTTGTCATCAACCCATAACTCTGTGGTCTCTG  
GAGCCAGACTGCCTGGGTTTCTGATCCAGCTCTGCCACTTAGTACCTGAGTTACTCTGGACAACTAATTAATCTTCAT  
GTACCTCCATTTAATATCTGGAATGGGATAACAATAGTACCTATCTGTTGGGTTGTGTAGAGATTAAGTAAAT  
AATATACGTAAATGCTTTACATTTTACGTATATTAATTTCAAAATGCTTCGAATGATGCATATCTCATAGTCTTTA  
TAAATGTTTGTCTATCTTATTATTTTGGGGAACGATTATTTTCAAAAATATATTTCTAGATAGCTGAAGTTTATTC  
AGTCAGTTTCAAACTTCTAGATATAGCCAGTTTCTGAGGTTCTTACAAAAGGATCCCTGTATCTTTGTTCTTCTGT  
TTAGAGAGATTAAATGGAATCTTCTTTGGTGATACTGATTGAGGTGATACTGAGATAAATAGAGGACATGAAGGGA  
TTAGGAAGAGTGTGTTGCCCTGCACTAAGTGGCCAGACTGCTCTACTGCATCAGCCCTCTGGCGATGTTCTAAGGGT  
TTGGAATTCAGTCTACTGCCTATACTAGTACCCTTGCTTTAAATTCCTGCTCCTATTTTGTATAGGCTGTAAGCAAG  
AAAATAGCCTAGTTTCTAAACCTATGTATAAATGAGAGAATAGGTGTCACTCAGGGTGTGAGTTCTCCCTGAGAGT  
AAATAAGACGTGACTGCATTTTCTCTTCTGGGTGAGGGTTATGTTTTAGAGCAAGGGTTGGCAAACCTACTACTTCTCTG  
TAGGCCAAATCTGTTTTTTGTAAATAAAGTTTTATTGTAACACAGCCATGCTCATTGTGTTATATGTCTACTGCTG  
CTTTCACACACTGTAAGGGCAGAATTGAGTGGTTCCCGCAGAGACCATATGGTCTGTATAGCCTAAAGTATTTAATATC  
TGACCTTTTACAAAAGAGTTTACCAACTCTGTTCTAGAGCTTTAAATTTGGACAGAGACAGAAATAAATGAGATGTTA  
CTACATTTAGTAGTCTCCACTAACCTGCCTATTCAATTATTTGCAGCACCACATCCCTTAAATGTATTTTGGAGAAACA  
AGAATTTATTGCAGTAGGCTATGTTGGATAAAGAACAAACAGCCCTCAGTAGCACATTGTGAATATTAAGAGGTGGTGA  
AGCTGTGATTGTCAAGCCAAGTTGTTTGGGAATCTTCATTTTATGATTTTGTGCTTAGTGTGATCAGTANATAACATG  
ATGCAAAATATATAGCTTTCTGTTGTGTGCTGTAGAATGTTGTTCTAGAGATACTACCAGTTGGTAGCTCCTTTTTTC  
ATGCAATTTTCAAAAGTAAATGTAATATGTCTGTGCTTTTCTTTTACATGAAACTTCCCCCTCCCCAACGCTG  
TAAGATTGAGAAGCATAGTGTACAGAAAAGGATCTTGAACCTTGGGTTGAATCCTGACTTAGTCACTTTATAAAGGAGA  
AACATCAAGTTACATTGCCACCGCCAGCCTCAGTTTCTTGGCTGTAAACACAGAGGTGGGAATCCAGGCTATGCTTGGC  
ACAAAAGGAGGACCAAATGAGACTCAGCATACTAGAAGGCTCTACAGCGCATATTATTACCTGTGTCTTTAATAATGTT  
CTCGATTTGGTTCACTTTCTCTCTCATACAAAGATGTGTATGTTTATGGAAGAATAACAATGGATTCTGAGTGAACCT  
AAAATGTCAACTGCACTGGGTATGAGTCTGCAAGCATGAAGGAGGCTGGGTGAGAAAGCCTCTTCAAACAGCATATGT  
ATTCCTCTGGTGTCTGCTTTATTATTCACTTCTCTAATGTGAAAGTTTATGCTTTAGTGCAGAGCTCCTGGGAATATG

Fig. 6.32

CAGAGAAAAAGAAAAAGATAAACCTTGGAGGGGAAAAAGAGGTAGTGCTTATGCCAATACAAAAGCATGAATAGAAGCAA  
 TAGTTGCTGGTTTTCTTTAGCTGTAGTTCCTTAAAGTGAATCTGGTATATATACAAGAAGGTAGTTAATGTTTTAAAGAT  
 GAAGGAAGGAATAGTTTTCTTTAATGAAAATAGACTCTAGTGCTACGGAAATGAGAAGTCCCCCTGTGATGAGGC'TAGAG  
 GAGAATTACTGAAGGATGAAGTGAACGTACGTGGCTCCATTTTGTTTTTCTTGGAGGCCATAAAGAAAAACAGACAGCT  
 TACTCAGTGTAAAGTTATTTATACCTTGTAAAAAAATCACCCATTTTTATAATTTAAAGGGATGTCAACGGTTCAGCTT  
 TGGATTGCAATTACATTAAATGTAATTTCTCATAAACTGTGTTTTCAAAATGTTTTAAAGAGATTTAACCAAGAAATCCAG  
 AATTCTTTTGTGTAATTTGTTTTTAAATGCTTTAGATAAAATATTTTGAATTATGACCTTGAATTTGAATTTAAGGG  
 ACTCCTTCAACCTCCTCTTTTAATCTCCTTTGTTATTTGGAGGGAATTTATCCAAGTTGTNTCAGTTAGCTATTGTTGTG  
 TAACAAACAGTTCCAAAACATAGTTTTGGATTAAATGGATAAATGATTAAAGGATAATCATGGAAGATTTTCATGAGT  
 CTACCAGTTGGCTGGGGAGTTCTGGTTATCTAAGCAGATTCTGATTATTTTAGCAAGCCTTACTCATGCATTAGGAGTT  
 AGCTGGCAAGCCAAGATGACCTTCCTTGGTAAAGTCAATGCTCCTTCCCATGTCTCTCATATCCCTCCAAACAGGCTAGC  
 TCAGGAGTGTTTTTCTACAGTGGTGTCTGGGGCTGAAGCATGGGCAAGTCCAGTTGTGTAAATGGTAGTTGGGCAACAC  
 ATGCACCTTTTCAAGTCTCTTTGTGTGTGTGCACATTTGCTTAACACCCCACTGGCCAAAGCAGATTGTGGTGGAACTCCGAGT  
 CCGAGTGGAGGATTGTAAAGTTATGAGTCAAAGTGTGCATACATAGGAAGGCCATGAGTTGGGCCATTAAATACACTCAG  
 TCTACCAGAAGTCATTTACCTTTTTTCTCCATCTTAAACAGCCTCCCTTTTGGAATTTAACTTTTACATACTGTGTA  
 AAATCAAACCAACAAACAGAAAAATCTCAACTTACCCTGGTTACTTTTCAGCACTGTTTTTAAAGCTTGGTCAGGGAGT  
 AAGTTGTTATTACAGGCTAAAATTTAAATTTTGTCTTATTACTTACACACTTCTCCCTAACTCCTCCTTTTTAAAGCA  
 AATTGAGTTTAAAGCCACAAACTGTTGAATAATGAAGTTGGTTCTTTTTCAGTTTTATTATCATATCTATCCCTGAGCTCTA  
 TTTGCTCTCTAATCAATTTCTGATTTTGGAGCCGCTATTACTATAGCAATTGTCTGGGTGAGTCCGTGGGGTTTTGATC  
 ATGCTTTTCTATGTTCTTGTCTTTGATTTTTCTCTCTCTTAACCTCCAGTTTGCATTTTCTCCTGCCTATTCTCATG  
 TCATAGAGGAACTTCAAACCTGGACGTATTTTAAAGAATACTGGTTATCCACTTTGCCCAGTCACACATACCTTCAACCA  
 ACAAATATATATTTGTTGAGTGACTTCCATACTATTTCAGGCATTAGTAATATACTAGTGTAAGAGTAGACAAAATGGA  
 GGCCATCCTAGAGTTTATAATCTAATGGGGATTGACAGACATTAAACAAATGTGTGAATACATAATTTAATGCTTGGCC  
 GTGATAAGGGTTATTGAGAAAAATAAGCAAGGTGAGCAGAAAGGGAATGATGGCGGAGGTGCTTTTTTGTATTAGTGTT  
 GAGGGAAGGCTTCTGAAGTGAGGGAGTGAGCCATGACAATCTGGGCAAGTGTCGACGCAGGGGCATTAGTGGATG  
 CAAGGCTGTCTGAATGACGTTTGGTGCTGCGAGCAGCTGTACTTCCAATGGAAGAAGGTTAGGAAATGAGGTGGGGGAG  
 AACAACAGGSCACAGATCACGCAAGAGCCCTTTGTAGACAACAGTAAGCTCGTTACATTTCTTCTAAGTGCCATGGCAATC  
 CATTGGTGGATTGAGGGGAGGGGAGAGACATGGTCTGATTCTGGCTGCTGCGTGGGGCACAGGCTATAGGGAGCAAGGG  
 TGGAAGTTGGGAGGCTATGACAGTCATGGCAGGGGCTGTGTTAGGAGAGTAACAGTGGAGATTGTGAGAGGATGGCAGA  
 CTGTGGAGCTCTCCAAAATGTGTTTCATTTAAAGAAGCCAAATTTAGATACTGTGATCAGTTCTGCCAAGTCGAGCCTG  
 TGGAGAAGTATCTCCCAAAGTAGACCCAACAGACTTCCGGTGACATCTCAGTTACTTTTAGGTGCTATGTCCACATGCAT  
 GAATTTTTAAATTTTAATAGTTACTGATGATTTTAAATGTGGATTAGAAATATAAAATCTGCATGTGAAAACATGAT  
 TTTACAGTTTATTACTTGGAAATGAGGAAAAAGTATTGAGTGTAGTGACAGCTTGAATGCAAGAAATAGCAAAAATCTCTAG  
 GGTATATCTGAATGATTGGATTTAGAACATGCTGACAGGATTATTTGTTAGATTGAGTCTCTGAGGGATAGTGAAGGAT  
 AACTCTGGTAAGTATGTAATCAGATTTAGTTATTACCCCTTATTGATTATCTACTGAATGTCACCTCTATGTTAGGCACC  
 TTCTATANGACATTTTCACTCAGCTTTCCTGCAACGCTATGTGATGCGGGTGGTAATGTCTTTTTTTTTTTTTTTTTTT  
 TCATTTAACAGATGAGAGAAGTGAAGTTCATAGAGAATAAATAGCTTGTTTTAGGAAGTCTCTGATTTTTTCAGATATTA  
 CAAGATTAGCTCTGGTAAATCTCTGCAACAGGAACCTTAGTCTGTTTTGTACACTACTGTCTCTTGAACATAGAAA  
 CATTCTTAGTATATAATAGACATTAATCAATCTGCTAAATGAATGAAGGAAAAAGAAATGGTTCTGTGTTTAGATC  
 TTACTCAAGAGTGGTATATTTGTTTTCTTATTATAGAATGAGGTTTAGGAAGTAATCTCTTGGAGTTTAAATGGAAAG  
 CCATTTTCGTATAGGATGACTTCTGTGTCCCTTAAGTGCAGGTTTCCCAATGTCCAGACCTTGGCCTTATATTTTTTC  
 TCCTTATTCTCCTTGAAGGACCTGGCTCTTCTGGCTATAACTACATGTGCAATCCCCAAATCTCAGTGTTTGATCCTAA  
 GCTCCAGTTGTAGGATGTATAACCCCACTAACAGCCTAGAGCCACTTAGGGCAACATAACCTTGGCCAAGTGACTTA  
 ATTGCCCTTGAGCCTTAGTCTCTGTGAGTAGAAGGAAGAGATGGAAGAAGAACTGAGCCTTGATTGAACAAAACCTA  
 TGGGCACTAGAAAGAAAGACAGGGTGCTTAGGGAGCATAACATTAGGGGGGAGAGACCTAGAAAGCAACAACTG  
 AATTTCTATTCTTTTGGAGCACCTTATTTTGTTTTTCTATCTAGAACTTTCTAAGGAGTTAAAAAAGAGCTTTTTACA  
 TAAGTTTTTTCAAAGGCTTAAATTTATTTTTTCTTAAAAAAGGTAAAGTATTGAAATAAAGCCATTCAAGCATTTA  
 GAGTCTGGAGAAGCTCTAACCTGCAGCTAGAGCAGCTTACACACATCCTTTGCTGCCAGCAGCAGCTGCACAGAGC  
 TTGCTGGAAGGTCTGAGGCAGGGTGTGACAACTGACCTGACTGAATGAAGGGGCTTCTGGAAGGGGAGGAGCTCCAT  
 ACAGGAACATTGTTGGGGGTAAAGTGAGCCTGTGGAGGATGTCTCTCCTCTGCTTCTCTTCTGAGAGCTGGGAGCTG  
 TGGAGAGTGGAAAGTGTGTCTGAATGACTTCGCATGTTTATGTTGAAGCTCATCTCCAGAGACTGCGACTTCCCTTGTGTC  
 TTGAATCTGCTGATCAGCCCTGGCAGCACAGCTTTTTAAATTTATTTAAAAAGGCAAGGGTTATAAGATGAAACCC  
 ATCAATTTTTTCAAGCCTCTGCAAACTCCTAATTTGGTGGGTGAAGGACACATCAATGAAATTTCCAGTATAAGGAGTGA  
 GGTAAGTGCTATAGTCTGAATTTTTGTATCCCTCTCAAATTCATATGCTGAAACCTAATCACCAAAGTGGTGGTATTAA  
 GAGGGGGTTTGGGAGGTGATTAGGTTGTGAGGGCTCTCTCTCCATGAATGAATTAGTGCCCTTATAAAGAGTCTTGAGG  
 GAGCCTGTTTGGCCCTTCCATCATGTGAGGACACATAGAAGGTGCTGTCTATAAGGTATGAGCCCTCACCAGACATTTA  
 ATCTGCTGGTGCCTTGATTTTGAACCTTCAAGCTCTCAGAAC'TATAAGCAATAAAATTTCTGTTGTTTATAAAATTGCCCA  
 GTCTAAGGTTTTTGTATGCGCAG  
 CTCAAAGGACCTGAGACAGTAAAGCCAGACAGAGGTCAACACCTGCCCTGGGAAGATAAAAAAATCCAAGTGGGTGG  
 ATCTGAGTGATGACTTGGAAAGAAATAGGATTCAAATTAGGCCCTTGGAGCAAGGATGTGACTGATGC'TTATCTTTAGGAA

SDOCID: &lt;WO 02074992A2\_1 &gt;

[illegible]

Fig. 6.034



[illegible]

Fig. 6.35

[illegible]

Fig. 6.36



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GCTCTACACCATGGTTCTCAACTTATTGCGAATACAATGGGAAAAGTGTCTCTACGCCTTTCTGTTTGAAATTCATTT  
TTATCCCTTTCTGTCTGAACAAAACTGTATGGAATCAACACCACCGAGCTCTGTGGGAAAAAGAAAACTGCTCCT  
TTCATTCTGCTGGAAGCTGGAGGGTGCTAGGCCCTGTGTAGTAGTGCATAGAATTCAGCTTTTTCCCTCCTTTCTCT  
GTATCTTGGGCTTAGAGAGTACACGGTGTCTCTATGTGAATATGGACAGTTAGCATTACCAACATGTATCTGTCTATT  
TTCTCTTGTTTAAAAAAGAAAAAACTAAAAACAAAATGGGATTATAGAAGGTACGCAAGGGTGGATCTGAGATGT  
TTGGGTAGGTTAAGTGGGCATTTTGACAACATGGCTTCTCCTTTGGCATGTTTATTGTGATATTTAACAGGCATCTTTG  
TAGTTTAAAGATGACACTTTTAAAAATAATTATCTCTAATGATGACTTGAGCCCTGCCACTCAAAGGGAGAATCAGAAG  
AACCTGTAGGATCTTATTTGGAATTGACTTTCTCTATTGTAAATTTGTTCCTGCTTATTTTTAAGTTTCTTTTTGTTT  
CACTGTAAAGGAAAGATGATGCTCAGTTTTAAACGTGAAAAGTACAAGTTGCTTTGTTACAATAAACTAAATGTATAC  
ACATACACACACACACACACACACACACACACACAACTTATACCAAATCACACCCTTTAGTTAGTTGTCCA  
CTGGAAAGGTGCTCTTTGTTTTCGAGCTTCAAGAAGCTCGTCTCTTTTATTGACTGTGCTAGGGACTCCACTGAG  
CAGGAATGACTATTCTGATATTGCTTGTGTACATTTTGGTTTTTCAGAGGTGGCATATTGAGGTGGTCACTTATGGAT  
TGCAGCATAAGTATCCATGAGTCCGGGTGTGGTGTGCTCACTCATTATCTTGATGTGCTGCTCACTACCACGTCT  
CTCCTTTACACTATTGGAACCTTTCATTCTTAATAATTTAATTTATCCCTAGTGACTCCAGCCTCCCATGACAGACTAA  
AAAACCAGACTTGATGAAGTCCAGATATATTTTAATTCTCTCTATCAAGCCCAAGGGAGAATTTCTTAGCGACTATGC  
TGACTTATGTCTTGAAAAAATTTAACTTTGGGAATTTTGATGTATAATGAAGCCAGGAGAGGGAGACGTGTCAATCCA  
AAATGCTGCGAATAGAATTTAAGCAAGCAACATGACACACATCTTTGTTTCTTTGCTTTTTTTTTTTTTTTTTTTT  
TTTGAATGAAGTCTCACCTGTGTGCCAAGCTGGAGTGCATGGTGTCTATCTCGGCTCACTGCCATCTCTGCCTCTCTG  
GGTTCAAGTATTCTCTGCTCAGCCTCCTGAGTCTGGGACTACAAGCATGTGACACCATGAGCCAGCTTCTGATTTT  
TGTACTTTTAGTAGAGATGGGGTTTCACTGTGTGGCCAGGCTGGTCTCAAAATCCTGGCCTCAAGTGATCCACCGCC  
TTGGCCTCCCAAAGTGTGGGATTACAGGTGTAAGCCACTGCACCTGGCCATGACACATATTCTTAGCTATTCTCCAA  
AGGGAGAACACTAGAAAAGTGGTAATTTGAAAATAGAACTGTCCAGTAGCAACTGGATGGCTCATAGCTCCAGTGGTT  
CTAATAAGCGCTCAGTGGAGAGTCTGATACATATTAGGTGCTCAAGAAAATATTTGTTAACTGAATAAAACAAATCAATC  
GGATCTTGTTCAGAGAAATTCAAAGCAGAGAAATATCTGCCACAAGTGTCTACATCAACCATGCCTATTAAGCAGCACC  
ATGTTTGTGCTCTCGCAGAAAGGGATTGATTTGGCATTGTCTGAAACAGGCCCCCATCTTACAGACGGCATTGAGAC  
TCGGAAGAGTAAATAATTTCTCAGCTACTAAGCAGCTAGAACTAGAATAAGAATGTGTGCTTCTCTGACTCTGAGTC  
TAGGATTTAGGACTTCAAGGGTTTCTATCTTTTTGAAGTCATGGGGCAGAACAAATATAAAGGAACAGCTGGAAAAAC  
TGAAATGAAATTACTATTCACTCTTACATAGGAAGAATAAAGATAACTCTTGAGGGCCCTGATATATTATAGTAATAAA  
AACAAGACTGAGGTAGCAGAAGCACATGGACATGCAGGGAACACTTCCAAACATCCTTCAAAGGCCTAATCTTAAGG  
ACAGGAACATGAGGAAGCAGAGAAGGAAGGAAATGTGTCTAAATTTCTTCCAGCTGTTTCTTTTACTATTACAGGCCAA  
GCCTTCTATCTCTTAAATCAAATTTTCAAGGAAAGCTTATGGCAGATGAGACTTTTGGGAGTACATTAGAAAACAGGAG  
GGAAAAGGCCCTTACTACTGATTGTTATCTTGTGTATTATTATAATATTATTAAGCTCTTTCCATGTTATATA  
GATTCTGTCTCTCAGCTGTACTGCAAATCTATTAGGACAGTCTCGTCTCTTTTATGTATTGCTTCTACTGCTCTATA  
TGTGGTGGTCTCTCAGTCGAGCAGGCTGTACAGTTTATTCGAAGTGTTCGAAGGAGCTTGTGTGCTTCCACTGCTCTGA  
CCTCATTTTTGCAATGTTAATTAAGTTGGGTAGATGACCTATTGACTGATAAAGTCACTAGCTCACTAGTATATGGT  
AAGTAGTTTATTCTCTTAGTTAGTTGACCGTGACCAGATTAAAGCCCAAGACAAGAAAAAAATCAGGTGGTAGAG  
AGTGGGGAACAGAGGTATAGGACACTGTTTTGGGAAAGTGGATCTTCTTGTGTTTCTACAGAGGATAACTCGGGCNGT  
CAGGATGAGGTATTACAAGAAGAGAGAACAAGAGNGGAGGCTCACCATTAAATTTGGCTTCTGGCCTTGGGTGAGCCTT  
GCATGATGTTTTGTAGACTGAGAGTAAGGAAGGAGAAGTTGAGACAAAACTTTACTCTCTGTTTGGTCACTGAGAGTA  
AAGGTTCTCTTTGTGCTAGCTTATTCTTAAAGCAGTATGCAATGAGGCTTTAGGGGTTTTATGCTGAAGAAAAATCATCC  
TCTTGTGCTAATTGGGCAGGATTCCAAGGGATTAAACCAAAATCATTGACCACCTGAGTTACAGTAATTTTAGAGC  
TTAGGTTGTTTATTTTCACTGTATAGCACAACCAATACTATTCACTGTGGCTGCATGGAATGAGATATGGCTAATTAG  
ATTTCTTGGCTAACCCAGGTTAAGGCAGAAATGCCATGTTAAGCAGTAGCACCCTTAAACCTGGGGAAAGAGGCTCTTGC  
CTCGTGTCACTTGCTTTAGAGGGCCCTACTGGTCTTCTCCACTGTGCCATGCCTTATGGGGAGACGATTCTGCAGAGC  
CATGTGGATATTGTCAATCCAAAGCACCCTTCTCTTCTTAAACCACTTGGTACCCCAATTCCTACCTAAGTGAT  
CCCAAGATGACTTCCAGGGCCTACGTGGGTCTCTCTTGAATCTCATCTCCCGAAGGTGAAGTGTACCACTTGTGTTGA  
GCACTCCTAGGACCAAGAGTGTGGGGCTGTGCATGAATCTTAGATGTTTGGGCTGAGATGTCTTGGGGGTGTGTGCA  
AGGCCCTCACTGCAGAAAAGAACTGAAGGTGGGGAAGAGAAGAGAAGGAGTGGGCTACTGGCTGGAGAACCCTGGCT  
CCAAAATTTTAGGCTAGGGCTGACATTTCTAAGTCTCCAGTGGGAAACCATTTAAGCAGTCAACACATTGACTACGA  
AGTGAGGCACTACTTTGAGTAAGTACTGATGCGAGAGGTCTTGAATGGCCTCTGCTGTGATGTGTAACAACA  
GTGGTTATTGTTCTCTGACTCTAATGCTGTAGGTACTAGATGTGACTGTTCTCCAGAGACATTCCTAGGGAGTTGCTA  
ATGGTGGTGGTGGTAAATGCTATTATTATTTTCAAGCAATGAAATCTTTTATTTTTTTGTAAGTTGTCTCCTTGAAT  
ACTGAGCTGTAAGGTGTGTGGATGTGTCTAGCAATTTAGAAATTTAGATTAATTGAGTCTGGTTATTTAACTTTTT  
ACTGTAGTTTGTACTTGTGTGTTTTCAGAGTCTAGGCAATTTTACATGGGGCTTATTTATCCTTTCTCCCTATCTCCA  
TTAGTCTTCAAGATCAGGAAAATGATTTATGTCAATTTAAATAGAGCCTTCTCTGTCTCTCATTTTCTCTTCTCT  
CTCTTAAGGTATATTATTGCTTACTATATCTGTGCCCTGTGCTGGAATTTCTCTGTGCTAATTTTTATTGATAACA  
TATGATGGCTTAAATGTCTAGTGTATTAGTAAATTCATAATAGAAAATAACTTTGTTCCCTCACAAATTTTTACAG  
ACATTTAAAATTAGCACTTCAATATCCAAGTATTTTGTCTTTTCTTCTGAGAGAACTAACACCTGTAGGTATTTG  
TTGACATGCAAAAATGCATGCAAGAAATTTAAATTTTATACCTATAATTGGTTGTATACTATTAAATAGACCTCTT  
CTTTAGCTCTCTTACTGTATACACTCTTCTGTTTTCNCAATTTCTCTCTCTTCTTAAATTCCTCACCTGTTCC

Fig. 6 [37]

[illegible]

Fig. 6.38

[illegible]

Fig. 6.39

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TTATTTTACATGCAAATCTTAATCCATCTGGAATTL.TTTTGTGTATAGGAGTGCAAGAATTTAACTTTATATTTTC  
TCAGATAGTTTTCCACTTGCCAGTGAATAATGATTGTGAATAATCTATCCTTTGCTTTTTAAGTTTTACCTTGAAA  
AAACATAATATAAAATTTTGGATCTAGTTTTTAAATAAATTCATTGATTCTCTTTTTTGTGGACAGCATAACATTGT  
TTTAATTACTGTAATGCAGTTAAACATCTGATAGCTTGAATCATTCTTATCTTTTTCAAACATTTCTGGCAGTTTCTT  
TCATCATCTCCTGACCAGATGGTCGTCAATATGCTTAATGCTCATTCTACCATTGGTCTCACTTGCTTCTAATCCAT  
TCACAACAAAGTTGGCTGAATTGTTGTTCTAAACACAAATGGATCACGTTACGCCCTGCTTGTGTGTATACATACT  
TCCAGCTATTTTTATCAACTAAAAATGAGCCCTTTGCCTATAACAAGATTTTAACTGAAGTCCAAGCAATTTCTGAAC  
TTCAGAGTGTGTGTAGACACCATTTCGGTGATTTTTTTTTTTTTTTCTGAGTAGAGGATTGATAGCATCATAGATTTT  
GAAAGAGCCATGACTCCAAAGCATTAATAACCTCTGTGCCACAGGAAGAAAGTCAGACCCCCCAGAACGGCTTGTCTAGT  
AGCAGGTCTCCCTGGTTGACATTTCTTTCTACCTGCTTGCCTCTCCCTGACCCTCTTCCACATCCCCACCCTTC  
CCCTCTGGACTGCTTGAATTGTCTATCCAGTCTGCTGTTTTCAACCCCCAGTGCTTTTTTACATGTTATCTCTCTGC  
CAAAGTGTCTCCACACATACCTCGCCCATCTGAAAATGGTTCCTTGTCTTCAAACAACAAATCAAAGAGCTCCCTC  
CTCTATGAAACTTTGTCTGATCCCTTAAGCAATGCTGATCTCTCTCTTTATTTTTAACCACTGTACTTAATCTGTAT  
TTTACCGTGACTCTTCTACTCTTCTCTCTACTGGTACTATAATATCTTTGGGAATAAGGACTGTGTTTTGTAAACCA  
CAGAGCCCACTGCCTGGCATAGCATAGGCACTCAGTGAATGCTTGTATGAACAGAGAATGGATGCAACAATGAATGTA  
TGGCAGGACATAGCCCTGGTGAAATCACTGGCAGGGGCTTGTGTGAAGTAAGTGCATAAGAAAAAACAGCATGCTGTT  
AGAGGTGAAGGGACAGCTTTGAGTTTAAACAGAAGTAAGGACAGAATGGGTGAAGCCATAATGTCAACTTTGAAATATC  
ACCATTATTAAGAAACCACATTTGAAGTTCTAGGATCCCTTAAATGAAGGCGCTTTTACCACAAATCTTTCTAAATTT  
CCTGGGGTGTTTATAACATGGAGGACCTATTTCTGAGCTACCAGAGTCTTAACACATACTAATATGAGTGTCTGTCAC  
CAAGAGTTATCAGTAATCAAGTAATGAAAGCATGGCTTTGGGTGAGTGGGTGGGTAGGGTGGGTGAGGTGGGATATG  
CCATGTTTGGACCAAAGCTGTCCACATTGATGTGTAGCCATTGTTTTCATGATTCTAGCACCCAGTGGATGTTGAGTA  
AATATTTGTGAGTAATGAATGCTGAGTGTGTAGCTGGGGGTATGACAGCCAGCTAACTGTCTACTTTCTCTAG  
CTCTCTGAGATGGCAATGCTAATTTTGTCTGGAGAAAGTAGCATCACTGTTTTACTTGGTTCCCTCTCTTACACTGCCT  
AATTTTAGCTAGTTCTTATTATTACTTGTCTTGTTTTACTTCTTGGATTCTTTATCGCATTACCTGTGGTGTCAACCACT  
GTCTTACTCTGGGCAAATGAACCTTGTTTTTTGTAGAAATGTTAAGTTTCACTGACATAAGCCGCTCAATTTCTACTCTC  
AAATCTTCTACATCAGCATTCTTTCTCTACCTGGGGAAAAAGAACCTCTCATTTTAAAGTGTGCTTTCTCTCTCT  
TAAATATTGCCTAAGCAACTTTTTAACTTTAATCTCTCATTTGTCCATTACCTCTTTCTTTGTTTGCAGACATCTTA  
GAATCTCCATCCTTGAACAACTCAATAAACAATAATTTGCTTGACTTTACTAGTTGAATACCTTAACGTTCACTTTT  
CTTTTACCTCCAACTTCTTGAATGACCTATGACCCTATCTACACCTTTTCTTACATACCTGAGGTCTGGAATCTT  
TATTACCTGTTCTTCTCTCAGTCTCCAAATTATTAAGAAAGTCAATTTCTCAGTTTTCATTTTCTTCCACTCTTGAT  
AACACTTGAACCATTAATAATCCCTTTATTTTGAATGGGCTCTTTCTAATGTCTATCACACTCAACTGTCTATTTG  
CTCGTATCTTTCTGTTTTATTTCTGTTTCTTCCGTGCTCTCTTCTGATGTCTGAGAGTGGATATTAAGTGTGACC  
ATGTCTGCAGGGATGACACCCCAACCTTAACCTCAAGTCAGGCCTCTTCTATGTTTCACTATGAGTGAGAACAGTGTG  
GCTCTACCATCTGCCCCACAAAGCTTCAACATTAATAGAAATCCGTATAATTTAAACAAATTTCCACCTATATTTT  
CTTTCAAATAAATGTTAATTTGAAATATTTACATTAATGATGCAACCAATTTTCTATCCACCCAACTTGAGACCTAA  
GAATGAGTTGTTGCTGATTCTTCTCTCATAGCCAAACCAATTTCAATGTTCTCTGATTCTTACTGTTACCCAGGCTTTGC  
TTTACATTTCCACTTTTATGGTGCTTATCTAAACCTTACTTTTGGCCTTTAATATTGTATTGGCTATTATTATTAT  
TTTATTATTATATCTTAATTTCTGGGATACATGTGAGAACGTCAGGTTTGTACATAGGTATACACGTTGTGTGGTG  
GTTTGTCTGCACCTATCAACCGTCATCTACATTAGGTATTTCTCTATCCCTCCCTGATCCCCCACCCTGACAGGC  
CCTGGTGTGTGATGGTCCCTCCCTGTGTCCATGTGTTCTCATCGTTCAACTCCCACTTATGAGTGAGAACAGTGTG  
TTTGGTTTTCTGTTCTTATGTTAGTTTGTGAGAATGATGGTGTCCAGCTTCTATCCGTGTCCCTGAAAAGGACATGAAC  
TCATCCTTTTTATGACCGCATAGTATTCATGTATATATGTGCCACATTTTCTTATCCAGTCTATCATGTATGGGC  
ATTTGGGTGGTTCCAAGTCTTTGCTATTGTGAACAGTGCCACAATAACATACCGGTGATGTGTCTTTATAGCAGCA  
TGATTTATAGTCCCTTTGGGTATATACCCAGTAATAGGAATGCTGGGTCAAATGGTGATCTGGTTCTAGATCCTTGAGG  
GATCACCACTGTCTTCCACAATGATTGAACATAATTTACACTCCCAACAGTGTAAGAGCATTCCTATTTCTCCAC  
ATCCACTCCAGCATCTGCTGTTTCTGACTTTTAAATGATTGCTATTCTAATTTGGCATGAGATGGTATCTCATTGTGGT  
TTTGAATTTGCGTTTCTCTAATGACCAGTGATGATGAGCTTTTTTTTCTACAGTTTGCAGGGGGCATAAATGTCTTTT  
TGAGAAGTGTCTGTTTCTATTTCTACCTCTTTTGTATGGGGTGTGTTGGTTCTTTCTTGTAAATTTGTTTAAAGTTC  
CTTGTAGATTCTGAATATTAGTCTTTTGTGATGGATAGATTGCAAAAATTTCTCCCACTCTGTAGGGTGCCTGTTT  
ACTCTGATGATAGTTTCTTTTGTCTGTGAGAAGCTCTTTAGTTTAAATAGATCCCAATTTGTCTATTTGGCTTTTGTG  
CCATTGCTTTTGGTGTTTTAGTCTATGAAATCTTTGCCATGCCCTATATCCTCAATGGTATTGCTTAGGTTTTCTCTAG  
GCTTTTATAGTTTTTGGTCTTACGTGTAGGTCTTTCAATCCATTTGAATTAATTTTGTAAAGGGGTAAGGAAGGGGT  
CCAGTTTCTAGTTTTCTGCTTATGGCTAGCCAGTTTCCCAACACCACTTTTAAATAGGGAATCCTTTCCCATTTGCTT  
GTTTTTGTGAGTTTGTCAAAGATCAGATGGTGTGATGTGTGGTGTATTCTGAGCCTCTGTTCTGTTCTGTTAGG  
CTATATATCTGTTTTGTTGCCAGTACCGTGTCTATTTGGTTACTGTAGCCTTGTAGTATAGTTTGAAGTCAGGTAGCGT  
GATGCCCTCAGTTTGTCTTTTGTCTTAGGATTGTCTTGGCTATACAGGCTCTTTTTTGGTTCCATAAAGATGCTTTT  
CTGGCTTTAGTTGTTTCTCTCTAGGATATTCTTTACATCGCAACCAGAAATAGTCATCAAAGTCCAAATTATGCCACA  
TCTTGTCTCAAAGATCTTCAATGAATCTTGATTCTATGTGATAATGGTTAATTTCTACATGATTAACATGTACTCTG  
AAGCTAGACTGCCCGGATTTGATCCTGGTCCCACTACTTCTAGTTTTGTAACTTGGAAAAATTAATCAACTCCTTT  
GTGCTTTAGTTGCTCGGTGAAAAATGGGGATAATCATAGTGTCTTATAGGGTTGTGTAATAATTAATGATTAT

Fig. 6.40

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CCTGCACATAGTAAACAGTCAATGAATTTATGCTATTATTAGTCTGCTATTTGTGGGCTTTTCATATTTTGTCTCAA  
ATCCAACCTTCTCTTTACTCACTATTTCTAAACACATTTGTGCATTTTTCATATATATATGCATTTCAATATCTATCTTTT  
GCTTCCTCTGCTGTAATACCTTTTCTACGCCCTATCTCTCCTGTGCTTTTAGAAATCTATCAGTTCTTCAAATGAA  
CCTCAAATAGACTTCTCCACAATCCTTACCTATCATACCAGGATTGTTTATGTTTCTGAAATTTACAGCCTATCTT  
ATACTTTTCTGTTTACTTGATTCATGTTGGCTTAGTTAATTACACACGAAGAAATCTGTGTTGCCTGATGGACTGT  
AAACTCCTGAAAACAGGGTTTGTGTTCAATTTTGTATTCTAAAGTAACAAGGAAAGTTCTCCAACATAAATGTA  
ATAGGTATTTGTTGAATGAATATAGAAGGAAGGGTGTAGGTTTGGATAAGAAATCATCATTATCAAACCTAGTCAAAAA  
TGACAAGAGTATTGTTTGGATGCATAAGTATAGAATTAGTACCTCTCACTCATCCCCACTAAGACGTTTGTGCTGTT  
AGCTTGCTGCTAACTGGGCTCTGGCTGTTACCTCGCAAAGACTCTGAAGTAGGAAAGAGCTTGGCACATTTAGAAATC  
ACAGATCATCAATGCTGTAGTGAGGTGAAGGAGGAGAAAGTACCATGGGTTGAAGTTAGAGAGTTGGAGAGAGATAGG  
ATAGGTCACTAGAACTTTAGGCCAAGTTATGCAGTTTAGGGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT  
GCCTTTGAAGGGTTTTAAGCTGGGGAATAAAAAGATAATACTTTACTTTTAAAATTCACCCAGGATGGATGGAAGACA  
GAGAGTGGGAAGATGAGTGAAAGCAGAGAAAAAGTTGGGCCTCTTGTAGGTGAGAGACTGCATGGCCGGGGCTCAAC  
TGGCAACAGTGGAGATGGAGAGAGGTGGGTGGAATTGAGATTATTTTGAAGTAGAATGGACAGGATTTGCTGAAGAA  
ATGTTAGGGAAGAAAGAAAGCAATTTGATATGATGTCTCAGTTTCTCACTCAAACATCTACGTGGATGTTGTGGCCA  
TATTTCTTATTTAACTTATGGATGAAAGAAGGTTTCATATAGCAGATAATTTCCAACAATTTCTAGGCATCAATTTTACC  
TGAGATCAAGAAATCTGATGCCATTTGGGATAGAAAGTGGTTCCTATATGACTTCCAGAGCTTCCAGATTTGATGGG  
TGCTTGTCTAGCAGTACTCACTGAGGTGTAGGAGGATAGCTTCATGGAGAAGATATATCTTGAGGTGGATCTAGAATGA  
ATATCAAGCTAAATTTAAATTTATTAAGGATGGAATGAAGTTTATATTCAATATCCACAGTCCATTTGTATCAATTTTC  
TGGGATGTCTATTATCCTGTAAAAACATGTATTTCCGCAGTTATAAGAGCTTTGATATTGGTGTGAAAACAATGGTCC  
CTAATTAAGCCATAAGGTATTTTGGGAATTTAAACAAATGTTTGGTGGTTATCAACTGGGAACCTTGGAGAGGTGAAA  
TATTGTATCGGGGACGCATTTGTTCTTTTAAAGGCCACACGGTGTCTACTTATATGTATCATATCATGTACATAGCCAGT  
TCCTTCTGCTGGACATTTAGGTTGTCTCAACCTTTTCTTATCTCCAACAGTGCATGCTTGTGCAAGTATATCCGTAGG  
ACAAATCTTAAGGATAGAAATTTATAGATAAAAGCAGTTACCAAATTTACCAATCTTCTTTCCAGAAGATTGCTCTGGG  
AATGACTGCTTTTCTTACCACCTACCAACACAGGTGCTAATCTCATAGGAAAAAAATGCTACTTTGTTTTAATTTTA  
ATTGATGTTTCTTTTGTGAGGAGTACAATCAAGCACCTTCTCTCTATTAATATGTTTATTTCTCTCTCTCACTTTTAAAC  
CATTCTTCAACCTCTACAATTATGAGAAAGTAATGACTGTCAAAAAAAATTTGCTCATTTTTTCTGACATCTTTCAAG  
GCCCTGAATAGACGTCCTAATTTCCAGGTCTGTGTAGACTGACTTGGGTTACTCAGTAATGGCTCTCTTCTGTTGAT  
GAACACACGTATTGAAGCATATATATGCCAGGCTCAGTACTAGACACAAGGGGTACAGTCAATGAACAAAATACACACA  
ATATTCTACCCTCATAGAGCTTACATTTTAAAGGGGGAAGCATAAAAAATAAATAGCTAAAAATATAAATATCAAG  
TGGTAATAGTACCACAGAGAAATAAAGCAGAGTAAGGTTTATAGATGGTGAAGATAGGAGAGCTCTGTTTACATGAG  
GGTTAACAGGAAGGCATTTCCAAGTACTTCTCCCTGCTTCTTCTCATCTGTGTGCTCTAGTTTACTCTCCCTCCCT  
TGTTTGATCCCTATTATTACTTGCAAGTGTAAATTCCTAATGCAGAACATGGTTAGCATTGGTTAATGGCTTTCCCG  
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TTTAAATCTGTTAAATTTATAGGGCATATCCAGCCCTCACCAGGGTCACTTCACTCCATTCTCAGATAGTGCCAC  
TGCTCTGCATTTGCCTGCTGTCAATCAAAAAGAGATGGCTTCTAATGAGGCTGGTTTATGACTTTTTCTCTTAAGAC  
AAAGTCACTCTTCTTTTGCAAAAGTTGTTCTAATGAAGGAAAGTAGAAATAAAATTCATCATAGCTTCTATGGCCAGA  
CATAAAATGTCTACAGCAGGATTGATATGGAACATAAGGTTTATTAATTTGTTTATCTGGATGCTTCTGATGAGTGA  
AAGAAAGACTTTACCATGGAAGCACTGGCAACTGAATTTCCATAATGGATTCAAAGATCTAAAGAAATATCCTCAATTT  
ACATATTCTTTCTGAATTTATGTTCAAAGAAAGGGTATTAATATAAACATAAAGTAAATAAGACAAAGCCCAAGTGTA  
TTAAGACTATTCAAGGCCTGCCATGCAATTCAGTGGAAAGTCTACCAGTAGGTTATTGGGAAACAGAGAGAACTT  
GGAGTCCAAAGATAGGAGAGGATACCCACCACTAATTTCAATGAAACCACAAGCTGGCCACTTAGCTTTTCTTGTGCT  
GTAGAGTCAAATGTGAAACAATAGGCTTTATTTAATACTTTGTATAAGGCACTTTGCTCAGTACATTATATATTG  
TCTCATCTCATAGTGAGCCTGAAGGGTAGTAATTTCAATGTACCTTACAGATGAATAAACTTAGACTTAGAGACCGGT  
CAAATAGCCTGCCCCAAACACACAGTTAATAAATGGAATTTGGGATTTAAACTTAGATTGTCTGATTCCAAAGCTTGTG  
CCCAACCACTGTTTATTGAGTACCTTCCAAAGAGCCAAGCAACAGTTTGAATAGGTTCAATATGTTCAACTATCACA  
ACAACCAGATAGAGTAGATATTCTGTTGAAGATGAGGAAATGATGTGGGGGAGAAAAAGTATTGTGTGGGGGAGAAAA  
AGTGATTGTGTTGAGGTACACATCTAGAGTGGTGCAGTCAGAATATGTGTGAACCTCAAGACCTCTAGCTCCAAACCTA  
TGAATTTTGTTTTTTAAACATGACTATAGTCTATTCTCTGTACAATGTTTCATAATATTTTTCTGCCAGTTGCCTGCTC  
CCTTTAGGTAAAGGGATAATTAGCAGAGATTCTTGCAGAAAAGTGTCAAATATCAGCACTTAAAAACAGTGCTGAAT  
TTCCCGTTATTTAGCCCATTTACTTGAGCCTAATTTTCATGCTTCTAAAAACAGCATAAGTTCTGTGGGTAGTGTTC  
AGTATGCTTCACTGTAACCGAATGCAATCCTAGTGGCCTGAGAGACTCCTACTGCTTCTAAACATGTATGAATAAGTGT  
GCCACCTGCAAGTAGCTTAGGCAGTGGGCAATCATACTTCAATTTCAAAGGGTGTGGAAGGGATGAGTATTTCTGTTT  
GAAGCTCAAGCTAGATTAAATGAATTTCTGATCTTAATCTACTTTGAACCTACTTGAACACATCATGAGTTGTTTTG  
GCTTACTATTAATTTTTTAAATACAAATACAGTGTCTTGTATTGAAAGCATAGGATTTTGTGTAGGAGAAAATTTGAAT  
GTCTTGAAAAACATTCAAAGGAGAGCTCAGGGAATAAATGAAAGCTGGTGGATTTCTAAAAATCTTTATTGAGGATTAA  
TATTAGAACTTGCTGTACAGTCTAAGTATTTTGACTTTGTTTCTGGGCTATTGGTTTTCATATAAGACACTATTAGT  
AATTTCAAGACAAATAATATGGCCACATTTCTGTTCTAATAAATTTGGTACTACTTGGGATCAATGGATGATTGTGT  
TATCTCCCAAAAGATTTTTTAAACAGCAGAAACAGAAAACATAATTCACAAATTTATCAATATTCAGCACTTTGATAAATTC  
AGATGAATTTGCCTACCTAAAGAAATGCTACCTGAAAAGCTTCTCTGGCAGGCTTCTCCAGAGTTTCAATATCTACTCT

Fig. 6.47

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GAACCTTTTGTGTACATAGCAATCATTTCTGCTGTGTCTCTTTTCCCTACTAGCCTTGGTAGGCTTCTTAGCTGAATTGT  
CCTGAAACCTATAAACAGCCCTGGAGGCTCTGAAAAATTAAAGATCTGTCTTTTTTGTCTGTTTAAATAAATGTTAGC  
TTAAGAAAGTCTGCAATGGAAGAACTCAACTTGTCTTAAATGATTCTCTCATTATTTCAAGTTGCAAAATAGAAAGAG  
GTATTTCCCAATTTGCAATAAAATATTGGACTTTAATTTCTAAAAAAATCTTGAAAGCTACATACTCCATAGACTTC  
TAAGCAAAGAGAGTCAAGAGACATTCATCTTCTTGAATCTTCATTAACTCTTCACGTCCTAAATAATTCTCTCATTAT  
CAAGTTGCAAAATAGAAAGAGGTATTCCCAATTAGAAATAAAATATTGGGCTTCAGTTTCAAAAAAAATCTTGAAAGC  
TACATGCTCCATAGACTTCTAAGCAAAGAGAGTCAAGAGACAATCATCTTCATACTAACACCAATTGTCTAAAGCTT  
CCAAATGTAACCTAAACCTTTTGTAGGAGTAAAAATAAAAAAGCCAAACAAATGAAAAGCTGTGAACCTTTCTAAAC  
ATCTTAAAGATTCTCTGGAAATTTAAACATTTAAGTTATATGTTAAGTTGTGTCTATCAAGCAGGTACTTTAGAAAAAG  
GGAAGATTTAAACAATTTAAATATATGCTCTAGTTGTTTGAATTTAAATGCTTTTGTGCCAAAGAAATTCAGGATAGA  
GATTTAGTAATCAGAGTTGAAAAATGCATAACACATTGTTCTAGTAATTCCCATCATTCAAAAGGAACCATCTGTACTG  
AATATCTTAGATAGTTTTCAGTTTCGGTTTACATTGTCAGACATAAAGGAATCTTGTATCTCTTAGACAACAA  
TTCTGTTATAGAAGTTTACAGGCTAATGGCAAACACATCTCATAATTGTCCTTCCAGTTTCTTGACCCATGTTTACTTC  
CCTTTAATTTTCATGCCATAAGTCAGTGTCTTGACAAAGTATACTCTGAACATATTTATAAATCAATTTATTTTCCAG  
CAGTTAATCTCTAATCTCCCTTTTCTATCTCTCATCAGCATTCTTCTTGACGGGTTCAATACTCTTAATTTGA  
CATAAGACCCATCCCTGAGAGCAAGGGAGAGAGAGGAAAGCCCTGGCCTTTCTTTTGTACCTTGATTTTTCATTTC  
AACTCATCATTTGTTGGTGCAATGAAATCTGGAGGTTTGAAGTGAGAGATGGAATCAGAGAGATTAGGAATGGATTGAG  
ATTCTACAACATAAAACCATTAGGATGCCTATGAGCTTTGTTTCTGCATAATATCTGAATTACAAATGTATTAAACA  
AGTAAACTAAGTTGTGTCCGACTAATTTGAAAAACCACTTTGGTTTACCTCTTTTGTGTCCATTTAAATCCATT  
AAATCTTTCTTACTTTTGCTTTTAAATTTAGAGTAATCTATACAATTTCATGCTACTGACTCTGCTTTTAAACACACA  
AATATTAAAAAAGAGACATGTTCTGGTGTCTTCCCTCAGCCAGTGAGATGTGTTACACAGTAGTCTTTGTTAT  
CAGCCTTTGGTTTCTGATAATTTAGAAAGCTTTCAATCCCATCACTTATGAAAGTCTGTGAACAATAATTTTATTTA  
AAGATTTCTTACAGTGCCGAATCTTACAACCATTTATAAATTCATGTCATGTTTCTTAAAGTTACAGAATCTTTTCA  
ATTTTAAAGCTTAACTCTTGTCTGCATAGCAAATCCTATTTATTTTAAAAAGCTGAATCAAGTGTCATCTCTTA  
AATGAAGATTCTGATCATGTCAATCAAAGAGAGCTTTCTCCTCTGAAATCTTTTAAAAATATTAGTTTCAGGGG  
CACATGTTTAAAGTTGCTCTAATAGATAAATGGTGTGTTTGGGGGTTTGGTGTACATATTATTCGTACCCAGGTAA  
TGAGCATAGTACCAATATGTAGTCTTCTGATCATCACCTTCTCCTACCCTCCACCCTCAAATAGGCCCGCTGTCTG  
TCCTTCTCTTCTGTGTGTCATGTAATCAATGTTTAGCTCCCAATTATAAATGAGAACATGCAGTATTGTTTCTG  
TTCTGTGTTAGTTCTCTTAGGATAATGGCCTCCAGCCGATACATGTTGCTGCAAAGGACATGATCTCATTCTTTTT  
ATGTTTGCATAGTATTCCATAATGTATATGTACCACATTTTCTTTATTCAGTCTAATGTTGTTGACCATTTTGGTTGAT  
ACCTTGTCTTTGTTATTGTGAATAGAGCTGCAATGAACATATGATGTTGTTGATCATATTATGGTAGAATGATTATATTC  
CTTTGGGTACATACCAATAATAGGACTGCTGGGTCAAATGGTGGTCTGTTTAAAGTTCTTCGAGAAATGCCAACT  
GCTTTCCACAGTGGCTGGACTAATTTACATTTCCCATGAGTGTATATAAATATTCCTTTTCTTGCAGTATCACCAAC  
AACTGTTACTTTTGAATCTTAAATAATAGCCATTCTGACTGGTGTGAGATGATATCTCATTGTGTTTGAATTTGTCAT  
TTCCCTAATGATTAGTATGATGAGTATTTTTTCATATGCTTGTGTTGGCCGTGTAATGTCTTATTTTGAAGTGTCTT  
TGCCCACTTTTAAATGGGCTTGTGTTTGTGTTTGTGCTTGTCAATTTGTCTAAGTTCTTATAGATTCTGGATATTAAACC  
TTTGCCAGATGCACAATTTGTAAATATTTCTCCCATCCTGTAGGTTGTCTATTTACTTTGTTGATAGTTTCTTTGCT  
GTGCAGAAGCTCTTTAGTTAATTAGGTCCCACTTGTCAATTTTGTGTTTGTGCAATTTGCTTTTGGCATATTATCA  
TAAATCTTTGCCAGGGCTATGTTTGAATGTTATTTCTAGGTTTCTTCAATGGTTTTTATAATTTTACATTTTAC  
ATTTAAGTGTCTAATCCATCTTGAGTTGATTTTGTATATGATCTAAGGAAGCTGTCCAGTTTCAGTCTTTGGCATATG  
ATTAGCCAGTTGTCCCAGAACCATTTATCGAATAGGGAGTCTTTCCCATGTTGTTTGTGTTTGTGCACTTTGTTGAAGA  
TCAGATGGTTGTAAGTGTGTGGGTTTATATCTGGGCTCCCTATTCTGTTCCAGTGGTCTATGTATCTATTTTGTACCT  
ATACCATGCTGTCTTGGTTACTGTAGCATTTGAAGTATAGTTGAAGTTAAGTGTGATTCTCCAGCTTTATTTCTTT  
TTTGCTTGAATTTGCTTTGGCCATTTGGGCTCTTTTGGGTTGCATATGAATTTAGAATAGTTTTTCTAGTTCTGTGA  
AAGAATATCATTGTTTCAATTTGACAGGAATAGCATATGTAAATTGATAAATCTTGAAACATTCAACCTCTCGA  
GACTGAACAGGAAGAAATTTAAACCTGATCAGACCAATAGCAAGTTCCAAATTTGAATCAGTAATAAAAGGCTACC  
AGCCAGAAAAAGCCTTGGACCAACAGATTCAAGCAAAATTTCTANAGACATATAAAGTAGAGCTGGTACCATTCTTA  
CTGAAACTATTCCAAAAATTGAGGAGGAGAACTCTTCCCTAATCTATTCTATGAGGCCAGCATCTCTGGCAAAGA  
CAAAGCAAAGACATAACAACAACGTAAAACTTCAAGCAATATCTTGTATGAACATAGATGCAAAAAATCTTTAACA  
ATACTAGCAAACTGAATCCAGCAGACATAAAAAAACTAATCCCTCTCCCTCTCCCTCTCCCTCTCCCTCTCCCTCT  
CCCCAGGCTCTCCGCTCTCCCTCTCTTTCCACGGTCTCCCTCTGATGCCGAGCTGAAGCTGGACTGTACTGCTGCCACCT  
CGGCTCACTGCAACCTCCCTGCCTGATTTCTCTGCCTCAGCCTGCGAGTGCTGCGATTGCGGCTGCGCCGCCACAC  
CTGACAGGTTTTCGTATTTTGTGTTGGAGACGGGTTTCGCTGTGTTGGCCGGGCTGGTCTCCAGCTCTTAACNGCGA  
GTGATCTGCCAGCCTCGGCTCTCCGAGGTGCTGGGATTTGCAGATGGAGTCTGGTTCACTCAGTGTCTCAGTGGTGGCCA  
GGCTGGAGTGCAGCGGTGTGATCTCGGCTCGCTACAACCTCCACCTCCAGCCGCTGCTTGGCCTCCCAAGTGTCTG  
AGATTGCAGCCTCTGCCCCGCTGCCACCCCGTCTGGGAAGTGAGGAGCGTCTCTGCCCCGCCNCCATCCCATCTAGGAAGTG  
AGGAGCGCTCTTCCCGACCTCCATCCCATCTAGGAAGTGAGGAGCGTCTCTGCCCCGCCNCCATCCCATCTAGGAAGTG  
GGGAGAGCCTCTGCCCGCCCGCCCTCTGGGATGTGAGGAGCGCTCTGCCCCGCCNCCATCCCATCTAGGAAGTGAG  
GAGCGTCTCTGCCCGCCCGCCCATCTGAGAAGTGAGGAGACCTCTGCTGCAACCGCCCGCTCTGAGAAGTGAGGA

Fig. 6. [42]



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CCCCCTCCGCCCGGCAGCTGCCCGTCTGAGAAGTGAGGAGCCCCCTCCGCCTGGCAGCCACCCCGTCTGGGAAGTGAGG  
AGCGTCTCCGCCCGCAGCAGCCACCCTGTCTGGGAGGGAGGTGGGGGGTTCAGCCCCCGCCGCGCAGCCACCCCATCCG  
GGAGGGAGGGGCGCCTCTGCCCGCGCCCTACCTGGAAAGTGAGGAGCCCCCTCTGCCCGGCACCACCCCATCTGGGA  
GGTGTACCCAACAGCTCATTGAGAACGGGCCATGATGACAAATGGCGGTTTTGTGGAATAGAAAGGGGGAAAGGTGGGG  
AAAAGATTGAGAAATCGGATGGTTGCTGTGTGTGTAGAAAGAGGTAGACATGGGAGACTTTTCATTTTGTCTGTAC  
TAAGAAAAATCTCTCGCTTGGGATCTGTGTGTGTGACCTTACCCCCAACCCCTGTGTCTCTGAAACATGTGTCTG  
TGTCCTACTCAGGGTTAAATGGATTAAGGGCGGTGCAAGATGTGCTTTGTTAAACAGATGCTTGAAGGCGGCATGCTCGT  
TAAGAGTCATCACCCTCCCTAATCTCAAGTACCCAGGGACGCAAACTGTGGAAGGCCGCGAGGGACCTCTGCCTAGG  
AAAACCAGAGACTTTGTTCACTTGTCTGTGTGACCTTCCCTCCATTATTGTCTCTATGACCCTGCCAAATCCCCCT  
CTGCGAGAAACACCCAAGAATGATCAATAAAAAAAAAAAAAACAAACAAAAACAAAAACAAAAAGAAAG  
GTTTGAGCTAAGAACTTGCAGGAGACAAGGAAATTAGTCAAGCAGAAGGATATCTGGGGGAATGGCATGCCAGGCAGAA  
GGGAAAGCTAGGGTTCAGGGCCCTCAGGGAAAGAAGCAAGGCCAAGGGGCTGGAGTAGAGGGAGGAAGAGGGGAAGTAGT  
GGAAGATGAGACTAGCTTTACTACTGATTATGATGTAAAGATAGTGGCCAGTTTCTTTTCAACTTGGGCGCCGAGAA  
TGGCTCCTGCAAGAAGGGTGATGAGAAGAAGAAGGGTCATTGCGCCATCAACGAGATGGTGACCCGAGAAATATCCCATC  
AACATTGATAGTGATTCATGGAGTGGGCTTCAAGAAGCGTGCCCTCAGGCATCAAGAGACTCCGGAAACTTGCCC  
TGAAGGAGATGGGAACCTCAGATGCACACTTTGATACAGGCTCAACAAAGCTGTCTGGGCCAAAGGAATAAGCAACGT  
CTCATACTGTATCCATGTTGCGTTGTCCAGAAAAATGTAATGAAGATTAAGATTACCAACAAAGCTCTATACTTTGGTT  
GCCTACGTACCTGTTACCACTTTAAAAAAATCTACAGTGGTGTGAATGTGAACCTAATCATCAAAATATACCA  
AATAAGATTATAAAATTTGTTTAAAAAAACAAAAAAACAACTAATCCACCACCATTTAGCAGGCTTTATCCCT  
AGGATGCAAGACTGATTTCAACATATGCAAAATCAATAATGTGATTACCCACATGAACGGAATAAAAAACAAAAACACA  
TGATCATCTCAATAGATGCAGAAAAGGCTTTTGATAAAATTCAGCAACCTTCATGTTAAAAACCTTCAAAAACTAGGC  
ATTGAAGGACATACCTCAAAATAGTAAGCCATCCACAACAAACCCACAGCCAACATCACACTGAATGGGCAAAAGCTG  
GGAGTATTCTCTTTGAGAACTGGAACAAGACAAGGATGCCACTCTCACTGTCTCTATTAAACATAGTATTGGAAGTCC  
TAGCCAGAGCAATAAGGGAAGAGAAAGAAATAGAGGCATCCAAATAGGAAGAGAGAAATCAAACTACCTCTGTCAA  
CTACCTAGAAAACCCCATAGTTTGGCCAAAAGCTCCTAGATAACTTCAGCAAGTTTCTGGATACAAAGTTCTAGTAA  
ATTTCTCTACCCGATAATGTCCAAGCTGAGTGCCAAATCAAGAGCATAATCCTATTCAATAGCCACAAAAATTAAC  
ATATCTAGAAATATAGCTAACCAAGTGAAGTGAAGAGCTCTCAATGAGAATTACAAACACTGCTGAAAGAAATCAGA  
GATGACATAAAACAAATGGAAAAACATTCCATGCTCATGGATAGGAAGAATCTCTCTGAAATCTTATAGCTAGAGAAAC  
CATAACATTATCATACAAATTTGGCATTTTTGGAGGTGAATGAATGGGAGAACTATTAGTAGTCACATTGGGACAAAT  
AATCATAAATGGAACCTATCTGTGTAACTGGATGTATTGTCAACCAAGTTATTGCTTTTGGGATCCTAAGTGTAG  
TATCAAGGACTTTGGACCGAAGTCTGTCTGGTTCCAAATCTGGTTCTCAGCATGACTTTGAGTAGATTATTATATCCT  
TTGCCATTCACTTATTCTTTTATAGCTTCTTACTAAGCTTGTATTAGATGTGTGCAAAATTTGTAAGGCAATGGTAAC  
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TACATTATGAAAATCTTTATATCATCGTGAGAAGTAAATACTATTTGTGAAGCATTTAGTAGGATTTTCACTATATAG  
GAAGTCTCAGTGATAACTATAATTTTATTTGTATTTTTCATATGCCATTTTGTGTCATAGTCGCATGTATAATTGTAA  
GGTTTTTGAGAGTAGGAGGCAAGGCTTATGAACATTTACATACCTTCAGGCATCAGTATAGTAGCCTCTCATGTGCATGA  
ATGAATTTATGAGTGAATTTCACTAAACACCAAGTATCAAACTTTTCTTCTCATTATCTCTCTGTTTTTGT  
CCTCTGTTGTTCTTCTCTGCTCTTTTCAGAGCATTGTAATTTTCTGTTGTCATTTTATTTTCTATTGCTTTT  
TAGTTATACCCCTTATCTCTGTTTATCATTTATCTTCTTTTAAATTTAATTTTCTGATTGCTCAAGGGCTAAAA  
ATATGAGCCCTTATGATTAGAACTATTCTACTCAGTATTGTACCTCTCCACATTTACACTTAACATTTGACAAA  
TGTAAGTAACTTACAACATTTTATTTCAATTTAGTCACTCTTCTTTTATTTTCTTTTATTTTGTAGACAGGGT  
CTTGCTCTCACCAGGCTGGAGTGCAATGGCACAATCATGGCTTACTGTAGCCTCAAACTCTGGGGCTCAAGCAGTCTCT  
CCTGCCCTCGGCTCCTGAGTAGCTGGGACTCAGTCATGTGCCACCACACCTAGTTAATTTTTTATTTTATTTTATGTA  
GACATGAAGTCTCACTATATTGCCAGGCTGGTCTCAAACTCTGGGCTCAATGATCCTCCCTGCTCTGCCTCCCAA  
GTGCTGGGATCACAGGCATGAGCCACAACACCTGGCCTCATCTCCCTTCTTTGTATGGTTATTGTCAATTCAATT  
TTAACATGTCAACCCCAACCTTAGAGTGTTTTCACTTTTGCCTTAAATAGTAGTCTTTAAGGAAATCTAAGAAAGA  
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ATCTGGTATCAGTTATCTTCACTTTTGTATTTCTTATAGTGTAGGTCTGCTGGTGATTAATTTTCTCAGCTTTTAT  
TATCTGAAAGTGCTTTTATTTTCTTCCATTTTGAAGAATATTTTGTGTTGTAGAGTTCTGAGTTAACAGCTTTG  
TTTTGTTTTTCTTTTTCAGCGATTTAAAAATTCATGCCATTTGGGGTTTTTCACTCCCACTGTTTCTCATAAGCCCATG  
ATCATTCTTATCTTTGTTCACTGTACGTAATGTGTGCTTTTCTGATGCCCTTAATATTTCTCTTTATCTTTGGA  
TGTGCTGCAGTTTTATTACAATGTGCCTGGGTGTGGTTTTCTTTATATTTATTTCTTTCTTTGGGGTTTGTAACTCTTCT  
GATCTGTTTGTATCGTTTTGAAAAGTTTTTCACTGTATTCTCTTCAAAATATTTTTTCTGAGTTCTAGAAATTTTCAATTTGTTAT  
CTTTCTAGGATTCCAATTACATTTACGTTAAGACTATTTGGTATTGTCTTACCTATTCTGAATCTTAGTTCTATCTTCC  
TGATTATTTTCCCACTCTTCTTTCTAAGATTAAATAATTTCTACTGATCTGTTTATAGTTCTCTTTCTTCTGCCAT  
CTCTAATCAGCTATTACAGCTGTCCACTAAATTTGTTCAATTTTATTTTTTTTATTTTCTAGTTCTAGAAATTTTCAATTTGTTAT  
TTCTCTGCTTACACTCTTATTCACCTTGTAGATCATATTTCTGTCTATTCTTTGGACATATATATTTAAATTTCT  
TTAACATATTTTACAAGGCTGCTTTAGATTCTTTGTTTGGACATATCTGGGTAATTTTGAATTTGATTGTTTGTATTACTG  
CTTTTTGCTTGCTATGTATCATATTTTCAATTTTTTAAATTTAAGTTCTAGGTTACATGCGCACAGCGTGC  
AGGTTTGTATACATATGTATACATGTGCATGTTGGTTTGTCTTACCCATCAACTCATATTACATTAGGTATCTCTCC

Fig. 6.43

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TAATGCTATCCATCCCCACCCCCACACCCCCAACAGGCCCTGGTGTGTGATGTTCCGCCACCCTGTGTCCAAGTGT  
TCTCATTGTTCAATTTCCACCTATGAGTGAGAACATGTGGTATTTGGTTTTCTGTCTATTG1 TAGTTTGCTGAGAATG  
ATGGTTTCCAGCTTTCATCCATGTCCCTGAAAAGGACATGAACATCCTTTTTCATGGCTACATAGTATTCATGGTAT  
ATATGTGCCACATTTTCTTAATCCAGCCTATCAATGATGGACATTTGGGTTGGTTCCAAGTCTTTGCTATTGTGAATAG  
TGCCGCAATAGACATACGTGTGCATGTCTTTATAGTAGAATGATTTATAATCCTTTGGGTATATACCAGTAATGGGAT  
GGCTGGGTCAAATGGTATTCTAGTTCCAGATCCTTGAGGAAACGCCACACTGTCTTCCACAATGGTGAACATTTA  
CACTCCCAAGTGTAAAGGCATTCCATTTCTCCACATCCTCTCCAGCATCTGTTGTTTTCTGACTTTTTTAATAATT  
GCCATTCTAACTGGTGTGAGATGATATCTCATTGTGGTTTTGATTTGCATTTCTCTGATGACCAGTGATGATGAGCATT  
TTTTCATGTGTCTGTTGGCTGCATAAATGTCTTTTGTGAGAAGTGTCTGTTTCATATCCTTCGCCCACTTTTTGATGGG  
GTTGTTTTTTTTTTTTCTGTAACTTGTTTAAGTTCTTTGTAGATTCTGGATACTAGCACTTTATCAGATGGGTAGATT  
GCAAAAATTTTCTCCCACTCTGTAGGTTCCCTGTTCACCTCTGATGGTAGTTTCTTTTGCCATGCCGAAGCTCTTTAGTT  
TGATTAGATACTATTTGTCTATGTTGGCTTTTGTGGCTTGTGCTTTTGGTGTTTTAGTCATGAAGTCTTTGCCCATGC  
CTGTGTCTGAATGTTATTGCCTAGGTTTTCTCTAGGTTTTTATGGTTTTATGCTTAACATTTAAGTCTTTAATCCA  
TCTTGAATTAATTTTGTATAAGGTGAAGGAAGGGATCCAGTTTCAGCTTTCTACATATGGCTAGCCAGTTTTCCAG  
CACCATTATTAATAAGGAATCCTTTCCCACTTTCTGTTTTTGTGAGGTTTGTCAAAGACCAGATGGTTGTAGATGT  
GTGGTGTATTCTGAGGCCTCTGTTCTATTTCTTGGTCTATATCTCTGTTTTGTTACCAGTACCATGCTGTTTTGGTT  
ACTGTAGCCTTTGTAGTATAGTTGAAGTCAGGTAGCGTGATGCTTCCAGCTTTCTCTGTTGGCTTAGGATTGTCTTGG  
CAACGTGGGCTCTTTTTTGGTTCCATATGAACTTTAAAGTAGTTTTTCCATTTCTGTGAAGAAAGTCATCGGTGGCTT  
GATGGGGATGGCATTGAATCTATAAATTACCTTGGGCAGTGTGGCGTTTTTCAACAATATTGATTCTTCCCATCCATAAG  
CATGGAACGTTCTTCCATTTGTTGTGCTCTTTTATTTCTGTTGAGCAATGGTTGTAGTTCTTCTGAAGAGGTCTCT  
TCACATCCCTTGTAAAGTTGGATTCTAGGATTTTATTTCTTTGTAGCAATTGTGAATGAGAGTTCACTCATGATTTG  
GCTCTCTATTTGTCTGTTATTGTATATCAGAAATGCTTGTGATTTTGCACATTGATTTTGTATCCTGAGACTCTCGTG  
AAGTTGCTTATCAGCTTAAGGAGATTTGGGCTGAGATGATGGGTTTTCTAAATATAACAATCATGTCTGCAACA  
GGGACAGTTTGACTTCTCTTTGCTAATTGAATCCCTTTATTTCTTCTGCTGATTGCCCCAGCCAGAACTTC  
CAACACTAAGTTGCATAGGAGTGGTGAGAGAGGECATCCTTGTCTTGTGCTGGTTTTCAAAGGGAATGCTTCTAGTTTT  
TGCCCATTCAGTATGATATTGGCTGTGGGTTTTGTCAAATAATGCTCTTACTATTGGAGATACATTCCATCATTATGTA  
GTTTATTGAGAGTTTTTAGCATGAAGGCTATCGAATTTTGTGAAGGCCCTTTCTGCACTATTGAGATAATCATGTG  
GTTTTGTGCTATTGGTTCTGTTGACGTGATGGATTATGTTTATTGATTGAGCATGTTGAACCAAGCCTTGCATCCCTGGG  
ATGAAGCTGACTTGATTGTGGCAGATAAACTTTTTGATGTGCTGCTGGTTTCAGTTTGGCAGTATTTTATTGAGGATTT  
TCTCATCGATGTTTATCAGGGATAATGGTCTAAATCTCTTTTTTGTGTGCTCTGCCAGGCTTTGGTATCAGAAT  
GATGCTCATAAAATGAGTTAGGGAGGATTCCCTCTTTTTCTTTGATTGGAATAGTTTCAAGGAATGTTACCAGCTC  
CTCTTTGTACCTCTGGTAGAATTCAGCTGTGAATCCCTGGGCTCTGGACTTTTTTGGTTGATAGGCTATTAAATTATT  
GCCTCAATTTAGAGCCTGTTATTGATCTATTAGGAATTCACCTTCTCTGCTTATTCTTGGGAGGGTGTATGTGT  
CCAGGAATTTATCCATTTCTTCTAGATTTTCTAGTTTATTGTGTAGAGGTGTTTATAGTATTCTCTGATGGTAGTTT  
TATTTCTGTGGATCAGTGGTGATATCACTTTTATCATTTTTATTGCATCTATTGATTCTTCTCTTTTTTATTAGT  
CTTGCTAGCAGTCTATTTTTTGTGCTTTTTCAAAAACCAACTTCTGATTGATTGTTTTTGAAGGTTTTTGTGT  
GTCTCTATCTCTTCAAGTTCTCTGATCTTAGTTATTTCTTGTCTCTGCTAGCTTTTGAATTTGTTTGTCTTGTCT  
TCTCTAGTTCTTTAATTGTGATGTTAGGGTGTGATTTTAGATCTTTCTGCTTTCTCTTGTGTGCTTTAGTGCTAT  
AAATTTCCCTCTACACAGTGTCTTAAATGTGTCCAGAGATTCGGTATGTTGTGCTTTTGTCTCTGTTGTTTTCAAAG  
AACATCTTTATTTCTGCCCTTCATTTCAATTATGTACCCAGTAGTCAATTCAGGAGTAGGTTGTTCCAGTTTCCATTTAGTTG  
AGCAGTTTGTAGTGAGTTTCTTAATCCTGAGTTCTAATTGATTGCATTGTGGTCTGAGAGACAGTTTTTGTAAATTTT  
TGTTCTTTTACATTTGCTGAGTAGTGTCTTACTTCCAATTATGTGGTCAATTTAGAATAAGTGTGATGGTGTGAG  
AAGAATGTATATTCTGTAGATTGGGGTGGAGAGTTCTGTAGATGTCTATTAGGCCGCTTGTGCGGAGCTGAGTTCA  
AGTCTGAGTTTTCTTGTAACTTCTCTGTTGATCGGTCTAATATTGACAATGGGGTGTAAAGTGTCCCATTA  
TATTATGTGGGAATCTAAGTCTCTTTTTAGGTCTCTAAGGACTTGCTTTATGAATCTGGATGCTCTGTATTGGGTACA  
TATATATTAGGTTAGTTAGATCTTCTTGTGAATTATCTTTTACCATTATGTAATGCCCTTTCTTTGTCTCTTCTGAT  
CTTTGTTGGCTTAAAGTCTGTTTTGTGAGAGACCAGGATTGTAACCCCTGCTTCTTTTGTCTTCCATTTGCTTGGTAG  
ATCTTCTTACATCCCTTTATTTTGAACCTATATGTTTCTCTGCATGTGAGATGGGTCTCTGAATACAGCACACTGATG  
AGTCTTGACTCTTTATCCAATTTGCCAGTCTGTGTCTTTAATTGGAGCATTAGCCCATTTACATTTAAGGTTAATAT  
TGTATGTGTGAATTTGATCCTGTCTATTATGATGTTAGCTGGTTATTTTGCCCATTAGTTGATGAGTTTCTTCATGGT  
GTCGATGGTCTTTACAAATTTGGCATGTTTTTGCAGTGGCTGGTACCAGTTGTTTCTTTCCATGTTTAGTGCTTCCCTCA  
GGAGCTCTTTTAGGGCAGGCCTTGTGTGACAAAATCTCTCAGCATTGCTTGTCTGTAAAGGATTTTATTCTCTCTC  
ACTTACAAAGCTTAGTTTGGCTGGATATGAATTTCTGGGTTGAAAATTTTTTCTTTAAGAATGTGGAATATTGGCCCC  
CACTCTTTTCTGTCTTATAAGTTTCTGCCGAGAGAGCTGCTGTTTGTCTGATGGGCTTCCCTTGTGGACAACCCGAC  
CTTTCTCTCTGGCTGCCCTTAACATTTTTCTTCACTTTCAACCTTGGTGAATCTGAAAATATGTGTCTTGGGGTTGC  
TCTTCTTGAGGAGTATCTTTGTGATGTTCTCTGTATTCTCTGAATTTGAATGTTGGTCTGCTTGTGTTGGGGAAG  
TTCTTGTGGATAATATCCTCCAGAGTGTTCCTCAACTTGGTTCCATTTCTCCCGTCACTTTAGGTACATCAATCAGAC  
GTAGATTTGGTCTTTTACATAGTCCCATATTTCTGGAGGCTTTGTTTGTCTTTTACTCTTTTTCTCTAACTT  
GTCTTCTTGTCTTTATTTCACTTTGATCTTCAGTCAGTGATATCCTTTCTTCACTTGTATCTAACAGGCTATTGAAG  
CTTGTGCATGCATCAGGAAGTCTCGTGCCATGGTTTTAGCTCCATCAGGTCATTTAAAGTCTTCTACACTGTTTA

Fig. 6.45



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TTCTAATTTGCCATTTCGTCCAACATTTTTTAAAGATTTTCAGCTTCCTTCAATGGGTAGAACATGCCCTTTAGCTTG  
GAGAAGTTTGTATTACCATCCTTCTGAAGCCTACTTCTGTCAACTTGTCAAAGTCATTCTCCGTCCAGCTTTGTTC  
TAGCTCGTGAGGAGCTGTGATCCTTTTGAAGAGAAGAGGCACCTGGTTTTTGTAGAAATTTTAAATTTTCTGCACTGGTT  
TCTCTCCATCTTTTTGGTTTTTATCAACCTTTGGTCTTTTCATGTTGGTGACCTACAGATGGGGTTTTTGGTGTGGATGTCC  
TTTTTGTGATGTTGATGCTATTCTTTCTGTTTGTAGTTTTCTCTCTAACAGTCAGGTCCCTCAGCTGCAGGTCTGT  
TGGATTTTGTCTGGAGGTCCACTCCAGATCCTATTGCTGGGTATCACCAGTGGAGGCTACAGAACAGCAAATATTGCT  
GCCTGATCCTTCTCCATAAGCTTCGTGCTAGAGGGGCACCTGCCTGTGTGAGATGTCTGTGAGCCCTACTGGGAGGT  
GTCTCCCACTTAAGCTATGTGGGGGTGAGGACCCACTTGAGGAGGCAGTCTGTCGGTTCTCAAAGCTCAAACGCCATG  
CTGGGAGAACCCTGCTCTCTCAGAGCTGTGAGACAGGGATGTTTAAAGTCTGCAGAAGCTTCTGCTGCCTTTTTTCA  
GCTATGCCCTGCCACAGAGGTGGAGTCTATAGAGGCAGTAGGCTTTGCTGAGCTGTGGTGGGCTCTGCCAGTCCAG  
CTTCTGGCCACTTTGTTTTACCTACTTAAGCCTCAGCAATGGTGAACACCCCTCCCCCACCAGGCTGCTGCCTCGCAG  
GTCAATCTCAGATTGCTCTGCTAGCAATGAGCAAGTCTCCATGGGTGTGGACCTGCTAAGCCAGGCACAGGAGAGAAT  
CTCCTGGTCTGCTGGTTGCTAAGACAGTGGGAAAAGCGCAGTATTTGGGCGGGAGTGTCTGTTTGTGATGGCTTCCCT  
TTGCTAGAAAAGGAAATCCCCAACCCCTTGACTTCCAGGTGAGGCGATGCCCCACCCTGCGTGGCTCCCGCTCC  
ATGGGCTGCACCCACTGTCCAATCAGTCCCAATGAGATGAACCAAGTACCTCAGTTGGAAATGCAGAAATCACCCTCT  
TCTGCATCGATGACGCTGGGAGGTGCAGACTGGAGTGTCTCTATTGTCATCTTGAATGGAGATCTTATTCTTTA  
TCTGGTGATTTTTTATTGCATACTGGACATTTTGGACAATGTGTTATCATGCCCTCTGGATTGTGTTATTTCTTCTGAA  
GAATTTTGTCTGTTATCTTAGCATGCTGTTCAATTGGCTGATCAGTGAACATGTTTAAAGCATGTTTAAAGCATTTTGT  
TAGTCCAAATCTTTGAGAAATCCAGGTGCTTTCCCAACCTATTCAACCTGGCAGTATTGAGTGTGATAGAGGATGTT  
TTTCTTGATGATAGGCTTTGTTTTAGACTTTACTGGAGTCTAGGACTTACTTTAGGACATAGTCTTTACTTGTAGAGA  
GGTACCAACTTTCTGTTTCTCAGGTAGATCCAGGGGTGTCAAAGTAGTATTTATTTATGAGCTCTCTCAAACCCATAG  
GACCTGAATGCAATGATGTCTAGTACTATTCTTCTCCAGCATTACTTGACCTCCACTATTCTGTTCTCTCAACCTG  
ATAACATTTTCTCTGTTAAGCCTCCAGTATTCTCACTCTGCAAAATGTATGGTGGTGATCTCAGTCACAGATTTGTCC  
CATGCTCGGGACAAATCTCTGCAAACTTCTGAGACTTCTCTGTGTTAAAGTCTTTACTCTCTAAGACTCTGCTTTATA  
GATGCCAGCCATGCCAGCTGCCTCAGACTCCAGCTCTTTTGTGATGTTTAAAGAAATATCCTTATTACAGAGGTGGGA  
CAATTCGTGGGCAGAGGATTTGAGTCTGAGTGTGGCTTGTAGCCACTGTTTGAACCGGTTTCTCATATATTTTACT  
TAGTTTTGTAAGTATTTTCTGTGAGACAGATAATCTGTTACTAGTACTCTATCATAGCTGGAAGCAGAAATATATAGG  
TATCAATTTGATTGCAATTGTTTCTAGTTTACAATGCATTCTGCCCTATCTTAAAAAATTTGTAATCTAATCATTTTA  
TTTTTGATCAGGGAATGTATTTATTGATTACATGAATAAAATCAAAGGCTATAGAAGAATATGTAGCAAAAAATCTC  
TCTTCTAATCTAGTAGCCTAATCTTCTCTCCTCAGAGGTGATAGATATTACCAGTCTTTTTTGTCTCCCTTTTCCAGACATAT  
TTTAGATATATATGAAATCCTCTCCCTCTCTTATTTTCTCCTACATAAATGATAGCATGATGTGCATACCTTTATATTT  
TTTGTGTTTTGTCTTTTTTCTACTTAATGACATATCTTTGGAGCTATACATATTAATATATAATCCTTACTGCTCT  
TTTTTGGGCTACATGATGACTCAGTTTTTATGAAATACCATGAATTATCTCACCAGATTCTATTTTACTCATACTTTTT  
GGTTATTATAAACAATGCTTCATGAACACTTTTGGGTAAACCATTTGGTATATGCCAGTATATCTGTAGGATACATTCA  
TAAAGTGCAATTGCTACCTGAAAATGTATGCACATTTGTTACTTAGTTAAATGTTGCCAAATTTCCCTCCAGCAGCTG  
TGTTAGTGGCTGTAGCCTCGTTAAAAATGTATGGGAGGAATGCTGACATTTTTGTTTTTACCTGCAGTATCCATTTTCTC  
CATGGTACATCTACAAAATTTGGCTTCTATTTTTTATTCTTATGTTTATCTTAATCTTTTAAATATCTTTCCCTGATTAA  
CTTACAAGTTTCTTGTATAACAAATAAGGGGGCTAAGGGGGAGGGGGATGGTTAATGAGGAAAAATAGAAAGAAATGA  
ATAAGACCTACTATTGTAGACACAACAGGGTGACTAGATTAGTAACCTTATTCTACAATTAAAAATAACCGAGAGTG  
TAACGGATTGTTTTGTAACACAAGTGATAAATGCTTGAGGGAATGGATACTCCATTCTCTATGATGTGATTATTTTACA  
TTGCATGTCTCTGTGTAACATCTCATGTACCCCAATAATATATTATACCTACTATGTACCCAGAACAAATAAAAATAA  
AAAAATTTAAAGTACAAAAAAGACAAAAAGAGTCACACAGAAAATAAAGGAAAATAGTCTATAGAAGGATAAAAAACA  
AAACAAAAAACAATAAGATAAGCAGCAGCGATTTATATAAATTAGAGTTATTATTATTACTGTGGTTGTCTGTGGTTG  
ATTTTCTAATATTCCAGGGCACGAATCAGCTGATAATATCCATTTTAAAGTGCAATTTTATTTCATTTTAGTCAGT  
CTGATTTTCAAATATTCTCCCTTTTTTGTGCTTTAAAAATAGGGGTATAACATATGCTAGCCTGTTCCCAATTTGAAC  
TCGTGCTTTTCAAATGCACAGTCTAATTTTATTAATCTGTATGGAATCATGTCTGTGAGCTTTCTAGCTTTTCTTTT  
TTTTCTGTTTTTTTTTCTTTTACCTCACTTGCTCTTCTGAATTTGAGGAGCTAAAGATATTGTGACAAGACTTAGCTAC  
TCAATGAACATTCCGAATCAATGTTTTTCTGTGGAAACAGTGACTCTGATGGAATCTTCTCCACTTCTTGGAACATTAA  
ATTGTCACTAGGTAATTCAGGAGTCTCTTTTTTCAAGTTCTTGTCTGCAGTATAGTGAAGTGAATTGTGACCTCATTG  
TTATGAAATTTGGAAGTGTTTATCTTTAATGTTAGCTTAGAGTGTTTTTTTTTTCCCTCTCTCTTGCATTCCCTTTAAAC  
CCTGACCATTTAAACATTATAGACAAGGACATTTCTCATGTGTTTGTCTTTCTCTAAATCTGTTAGTACTTTAACTGT  
GTGGTCCCAACAGCATGTTGTACTATACTTTGTGGAATCAACACTCAAAGAGCCCATTCAGAAGAGTTTTTTTTTCTTCT  
TCTTGTAACTGCTTTCTTAAAAAAATTTCTTTTATATTCTTAAAGCTCTAAGCCCCCAAGCCCCATCTCCCATGCTTG  
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TATAAACACTGTAACCTGAATGGCTTGAAAAGATGTTGCGAATGTAGTTGATTTTTTCTCTGAGAAACAAGTGTGTTAG  
CTTCTTTGGAGAATGTATTAACTGGTACTACTGGCACTACTAAGCTCTAGGCTTAGAAGTGTGTGAGGGAAACAAAAA  
CAGAACAAAGATATGCAGAACTCTGGTTTTTGCCTCCAGGAGTGCAATGGTTGTGAGTGTAGGATCTGAACCAAGCA  
GACAGATGTAGGCTGGATGATCTTGGGTGAGGTACACTAAATCTCAGTTCTCTCATCCGTGATACAATTGTACTCATCT  
CACAGATTAACAAGATAAATCTGTGGGGAGAATCCGCCCCAGAATTGAGAGAGGCTGTTCTCTGGGCACACTTGCTTT  
ATGTGGTCTTTTCAATTGCTGTCAATCAGTTTTTAAATCTGTTTGCCCAACACCATTGTGGCTATTACCATGACTAC

Fig. 6. (5)

[illegible]

Fig. 6.46

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AAGTGAATGTGTAAATATGTCTATAAAAAACGATGCAGTGTGGGTAACGGCAACAAAATTATTGGTCTCAGTCTCCCTT  
GGCTGTTTTTTCCCTAATTTCTTTGTGTTTTAGTTGATCTACTTGCAAGATGGAATAGTGGAGATAACATTTTCTAG  
TGTTCTTTTGAAGACACGTATAATTGTAGTCCATTGTCTGAGACTGAATGTACAGATGAACCCAGCCATGAATGGAG  
AAAACCTCAAGAAAAGTGAAGAAAAACAAACAGCCAAACAGCTCCTTCACTGGGATAAAAACCCCTCAGCTAAAAAGAG  
ATAGTTACTCTAAGAATTGTACTGTTTTATTAGTTAGTGACTTAAAAATATTAATCTTTTTGAATATAATTTGGCATGG  
GGAATCTTTGGGAAGATAAAGATTGTGGTCAATATAACACCTATCTAGCCACCTTTTTTGGGGTGGTTGGGTGAGTAG  
CAGTGGAAACAACTAGTATGTAAATTGAGATTCTAGGAAAGGTGGAATAATCTGGGGAACACCATTGGATCATAGCT  
TAGTTATTGCAGCAATAAGAAAAATATATTTCTAACTTTAGGGTTAATTTCACTCAGCTTTTCTCATTTAGATCTGG  
TTTTTAATCCCTGATTTAGAGCCGATCTTTTAAATTGTCTATTTTACTTTTTTAGAGCTAAATGGTTTGAATTGGACTTA  
AATATTCGAAATAATGTTAAATGTGAAATTCGTTGCTTTTAGTATAAAATAAATGTATGCATTGAAAAATTCTTTTT  
ACATGGTGATTACTTTTCATATATTGTGATGCCCTTGGTTTTATATAATAATTGCAATGATGATGATGATAATGAGAT  
TAGCTAACACTTATGTGATACTTCCCTTTGTGACATGTCTGAATTTCTTCTGGTTATGTATACAGTGGTGGTAATAAT  
ACAGTGAAGGCCAGGATAGTTCTAGCCCTTACATAAGTTTGGCTTTTATACTTAAAGCTAGTCTTTTAGTCCGTTTTTCC  
TTTAAACATCATATAACCTATTTTGGTTATAGCTACAGCTGTAACTATTTTACATAGATTTTTTACAGTTAATGGAAAA  
GAACCTTCTGGAAGTTATCTTTTTATCAGCAATGAAGATTATACAGTGCATGCTTTTATTACAACCTAGAATGAGTG  
TGACTTGAATAAATTAGAACTTACCAAGTTGCTTGACTCCCTCTTTGTCCAGTGCAGCAGTTAATATCTCACTCCCAT  
TCTCTAGGGCCAGTCAGCCTATGTTCAAATGTGAGTTCTTCCATGTATTAGCTGCAAACTGACCTGGGGAAAAAGTATG  
CAGCTTTTTTAGTTCACTATTCTCATACGTAAATGGGGTAATGGTACCTACTTTCATATGATTATTGAGAAGTTTTAAAT  
GAATTCCTGTTAGAAGCAGTAAGAACAGTGTCTCTCCATGGCAAGTGCCTTATGTTTTTAAATAAATAATAATGTCT  
GAGGCTCATGCCCATCATATTATCACAGAGCCTGTATCAAGGACATGGAGGCAATACCTGCAGTGGCCAAAGCATGAAAA  
TCTTTGACAGTTCTGTACTTGACAGCTGTAAAGAGTTTGGAAAGTTGCTTAACCTTAGACTAGTCTCTCTCATTGTAA  
AATGGAAGTCAGTCATAGTGTCTGCTTTGTGTGGTTGCTGAGGATTAATGAGATGATATTGTCAAGACTTGTGGTGA  
GTCACAAAGTTCACTGACATCTCATCCAGATGGGCGGAGAGAGGTAGCTTCTTAGTTTTGATTTTAACTAATAATGTGATC  
TTCTCCTGAGCAAACCACTGCTGATTAGAAGGAAAAATAAATTAATGTCTAAGCTGTCTTAGTCTGATGTATTGATT  
TTAGATAATGCTCTGTCTCTAGGAAAAGGTGCTCAGACTTTCAGATCTCTGTGTTCCAGGATTTTCCAGGTTTCTCTCC  
AAGATGATGTCTGGTATGTAGGGGAGGGGAGGGGCTTAGGCAGCCTCTTGGTGGGAGAGAAAAGTCTGGACCCATAGGC  
ATAGTCATGGTGTCCACTGATCGCACTTCAGGAACAGAGACCAATGCCTCTGGATGGACTCTCCACACCCAGCCTTTGC  
TAGGGTGCCATCACATTATTTGCCAGGCTTGTTGTCTAGCTCTCAGCTAGTCACTTTCTAATTTCCCCCTTAAACACCT  
GGACTCCCAGCCCTACCTCAAAGTTGCCATAGGGAAACAAAGAGTCTCAGAAAGTAAACATCGAGGCCCTCCCTCT  
GCCTAACTCCCTCCAAATGTCCTTGGTATGGGGCAGCCTGAGAGGGCATATCTTTCTAGAGCCCTGAACAGGAATGGGG  
CAGAAATCCTTATCCCTCGGGCTCTCTCTATCCACACAAGAGTCTTTAAGGCACACACATCTGACTGCTTTGTTCCCT  
TCCCTGCTTTTCTCTCTCACACTCTCGGGATGAGAAAGAGAGATGACAGTTTCTCTACACTCTTCTAGGCCAAATCTT  
CATTTACCATGGAAGAAGTCTTTGAGCCAAATCATTTGGATATGTGAAAAGCAATACAGACATTTAAACATTCTTCCCT  
CAAGACAATATGTAGTAAGACTTGGCAAATGGCCTGTTTTGAATGCCAGATGCTGAATATTAACCTCTTCTTCTTTTA  
TCTGTCTTAAGAATGTTTTATAAATTTGAAAGCAGGAAGAGCAGTGTATTTTTCCAAATATTAATCCAAAGTAA  
GCGCATAATCAATACAAGCTTTATAATGATGATGATGATGATGATGATAAAGTAACCATTAGCACAGGATAATTGCTAT  
ATAGATTGTTTTTACCCTTGGATAGCTTCTGGTTTTAGGGAAGAGACCATAACTTCAGAGCACTTGTGCACTTGGCATC  
ATGACACGTAAATGCTCCGCTCTCACAAATCTCACCCCTCTGCCCTCTCCCATCTCTGCGCCACACAAGACTTTC  
TGCTCCTGGAACATGAAATGATTTTTCTGCTTTGGGGTATGTAATAATTACTACTCTGTACCTGAAGCCCTGTTTCC  
CATATCTTTTCTTAACTGACTTCTCATTTTCAGTCCCTGCCTTAAAGCTGCCACCTCGATTTTCTGGATCTTTTCTG  
GCCACCTAACCCNAAGTAGCCATCCCACTTCCAGTTACTCTCCATACCACATCTCTCTTTTCTTTTCTTTCTGCT  
AAGTCACTATTTTATGTTTACATTTTTTTTGTCTTTCTACTCTCAGTAATGTAAGCCTCAAGAGGACAGGGGCTGTG  
TCCGCTTTATTCCCACTGGGCTGGCAGAGGACCTGGCAAAAAAGAGCTCAATACATAGTTATTGAATACATGATAA  
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CCTTTGAAGGAAGACATCATGCTCGTATTTCTTTCACACTTTTTTTGATATTTAGCTGCTCAATACAAACATGTTGGTG  
ATCATTTGGTGGAGGGAGTGGGAGTGGGTGAGGGAAAAATTACAGGCCCTCCATTGTCATATGATTAAACTGGCAAGACT  
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TTGTCAAGTTGTGTGCTGAGGAGCCTCAGAGCCTCAGTTGGCAATGGCTTATGTGGAAATTTTCATTGTAACAGAGAGT  
TTTAGGGCCACACCCAAGTGAAACTACTTATTTTCAAGATTGGAGCCTCCACAGAGAAAGATCAGAGGTGGGAATGAAA  
CAAGAAATAGTTCCAGAGACTGCTGCTGTGTAACAAATTATCTTAGAATTTAGCAGCTGAGAACAACCATTTTTTTTAT  
GCTCACGCGAGGAAGCTACAGGTCAAGAAGTCAGTGAAGGCACAGCGGAATAGGTTGTCTCTGCTCCAGCTGTGCAGAC  
TTGAAGGGCAGGGGAGACCGGATGCCAGGATGGGGTACATAAAGACACCTTCCCTCACATGCTGGTGTATCAGGATGG  
TCCGTTGGCTTAGTGTCTTACAGCCTGGTGGTTGCTGATGTTGTGACACTGGGTGTGGAGCTCAGGACTCCAAGCA  
TACGAGTTCCAGTAAGAAGACGGAAGCTACACTGCTTTTCAATGTTCAACCTTGGAAATCACACGGCCTCACTTCCACT  
GTCTTCTCTTGGTTGCAATAGTCACAAAACCCACCGAGTTCAAGGGAGATGACATAGACCGCCCTCTAAATGGGAGGA  
GGGTCTAAGAATTTTGCAGCCATGTTTTAACTAATATTAGGTTGGTGCAAAAGTAATTGCGGTTTTNGCCATTAAAG  
TAATATAAGGGGCAAGCGTGGTGGCTCAGCCTGTAATCTCAGCACTTTGGGAGGCTGAGGTGGATGGATCACCTGAG  
GTCAGGAGTTTATGACAGCCTGGCCAAATGTGGTGAACCCCATCTCTACTAAAAATACAAAATTAGCTGGGTGTGGT

Fig. 6.47

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GCCGTGCGCCTGCAGTCCCAGCTACTCAGAGGCCGAGGCAGGAGAATCGCTTGAACCTGGGAGGCGAAGGTTGCAGTGA  
GCCGAGATCGTGCCACTGCACTCCAGCCTGGGTG<sup>1</sup>CAGAGTGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAA  
AAGGAAAAAGAAAAATGTAATACAAATGTAAGGATGAAAGAAGCAAGCAGAGGGGAAGAGAGGGGTCTTGTATTCTGG  
AAAGGGAGATAGGCTTGTGACTGCGCGGATCCAGGTTACATTTACTGCACATGTGCCCTGCTTTTTTGCAGCTAGAGT  
GTTTTGATGATCTTCTGAGAGAAACGTCTCCTTCTCAGGTAAGGTACTCTCAGGTACTCAACGACCCCTCTTGTACCAAGCAGCTCC  
TGAAATCTTTGGTGGTCATAATAAAATAGGTAAAGGTACTCTCAGGTACTCAACGACCCCTCTTGTACCAAGCAGCTCC  
TCATCAGAACTTCTCCAAACATACACTCTCTCCTTTCCACCTCCAGCTCATCTTGCTTGGCCTCCGCTTTTTCCGTCAC  
ATCTCATCTCTGGCCTTTTTTCATTCTCATCCTACCTTATTTCCAATTTTCAGTCACATTTGGTGAACACACTGCTC  
TTGGTGTCTACAGCAAGGAAGGCTAGTTGTGTTGAATTTATAGTACTTTTTCAACAGCCATTGGGAAGCAGATGGAAC  
TCCCCCACTCATTTTTTACTGCCATTTTTTTTTCAACATAATTTACAAGAAATAGAAGGAATGTGTATTAGCTAATTGT  
GCCACGTGGTCTATTTTTCTCAGCAATACTTATTTTTATTAATGCAGCTGATAGAAAATGAGGCAAAATTTTCATCAAAA  
AGCTTGCTAATGTAAGAACTGAGAGTACCAGGCAGCTTGGAAATAAATAAGAAACACAATTGTAATATTACTATTTTGG  
GAGTTTACATTAACTCCTACACAATAATCAAAGGTGGAAGTGTGATCATAAATTTTAGCTGGAATTTAGGAATGTGG  
CAGCAACTCTGGGGCACATTTACAGGAAAATCATAGACTCAAATGGAATTTGCTGAGGACTATATATCAATTTGCCATC  
AGAGTAGACAGTATTAGAAAACCTGGACTCTTCCCATTAACTATTGTAGATGTGGCATCTCAAACAGAAGAGAGTTATG  
GCGGTTATAAATCGTGCAGTGAAGTTGTTTTTACTTTAGATAGAGAAAACAGTTGAAAGAGTTTGGGATAGCAGATG  
TATGTCTCTGGTCTCTCTCTTTTAGTTTAAAAATTAATTGTGCATTTCAGAACTCTGTACTTTAAATATTTAGACATG  
GCAAGTTTTAAAAAGAGATATGTAGGCACATACTTCTCATCCACTGCTGACAGGCATCAGGAATGGGGTAAATTTGG  
ATAGGAGATGCTTATCCATTCTATGTCACTGCAGATATGAAATTTTGTCTTATGTTGTTTTGATTTAGCANGAAATAT  
CTTTATTATTTTTTTTCCAATGATGAGAATGGAATGTTGTAATTGTTAAGTCTGAAACTATGATTTAGGAAAGAAAA  
AAAAAAGTGCAAGATGATCTATTGCACAGAGAGCCACCAGAGCCCCTCTGTTGGATAGAATAAGGAACCCCTGTGGGT  
GTAATTGGGGCAGGAAGAAGGGGAGGATATGGTGGAAAGTGCTTGGGTTTTGAAGCCCACTTGTTTTTGAGTCCACG  
TTCTATGTTTTCTTTGTGTTCTTGTAGCAAGATACTTAACCTTCAATAATCTATGATCTATACATTGGGAATAATAATC  
ACTATCTAGAAATGGTGTTTTAGAGATTAAACATATTATAATAACCTTGGTAAAGTATCTGGCTTATACTCAGTAGAAGT  
ATCTGCTTTATACCCAGCAAAATATTCCTTTTCAAATAGATGTAGGCCACTATGTTATAATTAATAAAGCAATACCATAA  
GCATTTGAATGTTTCTGCACAATGACCTATTTGCTGTCTTTTGTAAATTTTCTTAGTTGGGGGAGTGAAACTCCTGAC  
TAGCTTTGGGCTGGATATAGCATAGCGGTGCCACCTATGTTGGAANGGTTTGAAGAGTCTCTCGACAGGGCCAGTGACCT  
CATTGTCTCTCATAGAGCCAAAATTTGCGCCAGTTACAGATTCAGTCCCCTGAGTTTTGAACAAACTTCCAAAATGCCA  
GATCTTCTATTATAATGCAAGTATTCTTGGTAGTTGAGAATGGAGGAGAGTTATGAGAGTGAGGTGAAATAGGTTAAGC  
TACAGGTTGCAAACTCATTCTTGTCTCTCTTGGGAAAACCTGGACAGTCAGATGACACATTATTGCCTGGCTGCAATTG  
GCTGCAAGGGGCAGCTGCCAGTTTGTATGGGATGCCACTCTCTGATAGGATACTGATCCCTTTACCTTACTCTTGGC  
ATTCTTTAGACATTTTTCACTGTTTTCTGGCCCTTGCAACACCTGAAAACCTTATTGCCCCACAGTTAATTAGAGAAGAG  
AACTGACAGATGTGAGCCAAATTTAGTTGAAAGCGGGTAGTCTGTATGTGAGAAGATGGCTTAGAGGTTCCACAATCTCTC  
AGGTAGGGCAGGTGGCTGCATCTTTGAACCTCTAGTTTCTCTCTGTGTGAGAAGATGGCTTAGAGGTTCCACAATCTCTC  
TACTTTTCTCATTCTCTGTTCTCTGATGGTGATCTGGGTTCTACCTGAAGGGAGCCAGGATTAGAGGAAAGAGAAAT  
ATTACAGGCAAACTGGTCTCTTTCCAACATGGCCCAATCCCTCTTGGCGGAATCTGCTTCAAGGAAGTTAAGCGTTTGT  
CTAGAAATATGATGTGATGTTACGGAGCCCTTATTCCTCTCTATAAAACAACTTTCTGTTGTCAATTCTCTGTGA  
ACTATGTTATCTACTATGCTGACCACAGGGTACATGTGGCTTTCCACATTAAAGAAAATAAAGAAAATAAATATCCT  
GTTCTTGGGCCACACAATCTCATTTCAGGGCTCAATAGCCACATGTGGCTAGTAGCTACTTGGCAGAGGAGACACAGA  
AAGAACATTTTCATCATCACAGAAATTTACTCTTGTGAGAGAGTGTCTCTAGAAGCTTTAGGCCACTGAAGTTGTAT  
TCAGCGACCTGACATCAGAGAGTTTTTGTAGTCACTTGAGCAGAGGTAATGCAATCCCTGGGGAAGACTTCCAGTTTCA  
ATTACATTGAGGTTAACAAGCCCATTTGTTCCAACCAAAATAATAGTTGCTCAACATTCCATTCTGATGATTTTTTTTA  
TCCAAGCAGTCAACATAGTTTTCATTAAATACCACCCACTAATTGTGTACTAGTTAAATGAGGAATGAATGTGGCTCTGT  
CTCCAGATAAATGAATAGAGAGAGAGACAAAAAAGAAATTTGGCTGACTCGGGGTGCTGGGTACACAA  
AATAAATTGGTTAGGCTGTAGGATCAGAAAATCTCTCTAGATCTTTTTTCTAGAATCTCTTTTTCTTAGATCTTCTCTT  
TCTGAGGAGAATCGCTCAGTTTTTAACAAAGTGCCAGTTTACACTAAAATGCTTGTCTATTATATAAAATATGGCATT  
TGTTGCAATATTGCAACCAAGAGTCAATTGAGTTTCCAACTAAACAAAGTTTTATGAAACAGTTTGTCTGTCCAAC  
CTTAAAAAGAGAAGGCATTTACTATATGCCAAGCATTGTGCTGCTGCTTCACTGTCATTTCTAATGTGGGTTTCCACA  
ATACTTTCTTGACAAAGGTGAGTGTGACCTACCTGCTGGAGAGACAGCATCAGGAAGGAGGGAAGCAGAGGTTGTG  
GAGTACAGCAGACTGGGCTTAAATTTGAGTGTGTTACTTACTAACTTCAAGACTTTGGGCATTTACTTAACTTCTAT  
TAGCTCTAGTTTCCCTGTCTGTAAATGGGGGACATGATACCTGCTTCATGTGATTGTTGTGATGATTAAAGTACAGCAA  
GGCAAAGGAAGTGCTTGGTGAAGACCTGGCACACAGAATGAATACAGGGGAAGAGGTATCTTTTTCTGTCCCTACT  
GAATTGTACCTGTATATATTGGACACTCAGCAAGTATTGTTGAATAGATAGGTGGATGGAAGGGTGAAGTACATC  
TACAAAACATTCTTCATCTGCAGAACATTTCTGNGAGTGTAGGTGGTGCCTAAGTACAATGATTTGGGGAGGCCAAA  
AGTCTCTTATTCAACCTCAAACATCATCCCACTGGCTCTGGCTGCTATTTTTGAAATTTAAGTATTCTTCAATTCTATTCA  
GTTATATGTCCCTGTTAAAAAGCAAATATTACTTTAGAGAAGGAACACACTAAGCTATTGTGTGCCATTGGTTCCTCA  
CCTGCCGAGCCTCCTAAGACAGCACTGTGGAGTGGAACACCTCTGATCTGGGAGCTGGATATTCTGGCCTCCAGACCT  
GGCTGTGCTAGCATCTGGCCTTTCTGGGCCCTTGACCTCAGATTTCTTANTAAATTAAGTGGAGATTAGACTAGATCTT  
CTGTAAATGGTTTGGTTTTCTGGTTTTATAAGTGGGTACCAGGCAAGTGAGTTTCATGTTGAGGCATGGGGCAATGCC  
TGGGTTGGATGGCTTTGGAAGGTGGCAATGTGGGGATTATAGCCCTGCAAGGACAGGGAGCTTCTGTCCAATGTGGTTA

Fig. 6.48

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CAGGGTGCCTGATAATAANAGCATAAGGGACATACCATGAAGGAACAGGGGATCAACAATGACAGTTTTAGGACTGTTTT  
CACAGCTTTGTTAGATACCAACCTGGTTTATAAACATCCCTTAGGAGTCTTCCTGGATATTAAGCATCAACATAAGATC  
ACCTGGAATGAAGCCAGTTGACTGCTCCAAACGTGATCTTCAAACTGGGTGCCCTTATGCAGCAAGGCTTGTGTGTAT  
TGTGGAAAAGTCTCCAGGACATTCTGAAGCGTGACTGTCCACTCGGTGGTGCACCACGGACTGCCAGAAGCTACTGG  
CCTGGAGCAACTGGCCTAGCCCATAGAAAGCAGGAATGAAGCAGCTCTTCGTGGCTGTAGGTGTCCACGGAACAAGGG  
TAGAGCCAATTACTGAACACCTCCACATGCCAGGCACCATAGTGGGCATTTCACACACATTGTCTCATGTAACTCAC  
AGCTGTTCCATGTAGTAGACATTACTGCCCTTCAACACAAATGGGGAAGTGCAACTCAGAGAGGAAGAAGATAGAGGT  
GAGATTTGAGAAGATTTTTGGATGCCAAATTCGCATGTCTTCCCATGTATGTGCGACAACCTCCAGGATGTTCTGCGAG  
ATATCACTTGCTGTTATAGTTCAATGTTCTTACCCATGGGCATTTAGGGTGAATTATTGTTCTCACATTATTGCTAT  
TTCAGGCATTGCTGGAACAAAGAAACAATCACCACAGTGGCCCCATCTACTCTGAGAGAGAGCGTTTGAAGTCATCAG  
TCGTATTTTCCAGCTGTCCAGGTTCCAATTTAAGTTTTATGTTGGATCTTTTTCTCTTTACTCTTGGTTGATTGGAGTT  
ATAATCTGTGTTTTCTNTTCCCATTTTTGGGTATTCCAGATTTAGATTTTTATTGAGATTCATTTCATAGTGCTTTAAAGG  
TTAACAAGAAGCCTGAAACTCTCTGGGTTTTCTTATTAAAGTGCAGCAGGGAAGAAGACAGAGTGTTCAGTTTATTGGG  
CTAGACATATCTGTTGATTGACGCGAGATGTGCAACATGTTCTGGGAACCATTTCAATGTTCTGTAATAAGTAGCACA  
TTAATCAGGACTGGGCAAACTGGAGGGTCTCAGCAGGGTTGGAGTTTCTGGGAAGTGCCTATTAAAGATGAAGAATTA  
GCCAGTGCTCACGTTTAAANGTAGACTCCTGAGATGCGGCCTGGAGGGAGATGCCACAGAGTGCTGATCAACATTGGT  
GCGGATCACTGACGTGTGATCACTTTCACCTGTACATCATTATCAGTTCAAAGCCTCCCCCTGCCCGTGGGCTTGCCG  
TGAGAGGGAGGCTCCATCCTCTTTTTTAACATAAGGGCAGGAGGGTNTGCACACTCCAGAGATGTGTGTCATTTACTCT  
TTGCAGCTTCAGCAATTGAGTAGACTGAAGAAGATGTTCTGTAAGGTGGACTTTTCTTTTTATCATCATTGCCCCCTT  
TTTCTAGATTTTTTATTGTGAAGTGTGTTATATATTCAAGATTTTATATCATGTCAAAAGCCTAACCAATAAATAA  
GTCTTGAGTATGCCACTGTACTGTATGGAGCATGAAGCGGCTTTTTGTGTCAGTCTCCTTGTGGAACCACTCCTTGA  
AATTGGGCTTATCATGTCTGACTTTTTCTGGACAGTTTTACCACATAAGATAGTTTGCTAAACATCTTCCCCGTATTT  
AAAATGTGGCTTTTGTGTAATAAAGCCCTGTGGACTCCATAGCAGTACCAAGTTTACAAAACCTACCCAGTACCACGGT  
TTTGTAAACAGTACCCTGTTTGCAAAAAGCTGCTGTTTTAAATAGCTTAGATGGCCTTTATCCCAAGTGTCTGTG  
TTTTGATTATTCTCTGATGCGAATTAATGAAGAAATTTGTGCACGAAGCAAACCTTACCTCTGTATCCCCCAATACC  
ACATGATCTCGGCTCACTGCAACCTGTGCTCCAGGTTCAAACAATTCTCCTGTCTCAGCCTCCCAAGTAGCTAGGAT  
TACAGGTGCTGCCACCACGCCCCGCTAATTTTTGTATTTTTTGTAGATGGAGTTTACCATGTTGGTCAGCCTGGT  
CTTGAACCTCCTGACCTCAAGTGATCCACCAACTCGGCTCCCAAAGTGTAGGATAACAGGCGTGAGCCATCGCAGCC  
AGCCCCCTAGTTTTAATTTCTATAAATTAATGGATTTTATAGTAGGATGTTAGGACAAGAAATTTATATGTATTACATA  
TACTTGGGGATTGATAAGAATTTATATTTCTTTTTTTTTTTTTTTTTTTTTTGTAGATGGAGTCTTGCTCTGTTACCCA  
GGCTGGAGTGCAGTGGTGAGATCTTGGCTCACTGCAAGCTCTGCTTCCGGGTTACGCCATTCTCCTGCTCAGCCTC  
CCGAGTAGCTGGGACTACAGGCGCTGCCACCACGCTGGCTAATTTTTGTATTTTTTGTAGATGGAGTCTTGCTCTGTTACCCA  
TGTTAGCCAGGATGGTCTCGATCTCCTGACCTCATGATCCGCTCCGCTCAGCCTCCCAAAGTGTGGGATTACAGGCGA  
GAATTTATATTTCAATATAGCAGAAAACATGAAGAACTTTGCAACCCAGTCCCATTCTGTTTTTACCATTCCA  
CATTCTTGTGTAGTGAGTATGTTCTGAGGCAGTGGTCACTTTGTGANGCAGTCATGAAATAAATAGGAGAAATCTGG  
CCATACTTGTGTTTTTCCAGATCCAAAGGTAGGATAAGCCTCAGATGCTGATGTGAATTTAGTGAGGGGCTCTGATATG  
GCNTGATGCCCTTGCTGTTACTCTGTTGAGCAGAAATGTGTCTTTTATATCATATATCCACTTGAGATCTTCAAGGC  
AAGCAATTGAAACAGACTTTGGCTGGCTTAGGCATAAAAGTAATTTCTTGAGAGATACCAGGTTATCTGGTGGACTCAC  
TGTAAGTTGTAGGAACAGACTTAGAATATGGGTGGGGAAGGGAAGCCAGAGCCAAATTAAGTACACACCAGAG  
AGCCAGCTTGGGGAGCCATCACTGCTGCTCCTGCTGAACACTGGGCATGGGGCCGGCACGGCCACTGCTGGTGTGGCC  
TTGGATACGGTTGCTTGGTGCTGCTGGACCTACTGGCCTGGCACTGGCTGCTGCCACCACAGTTGCCAGGATGAAGTT  
TCTCTGTTCTCTGAGCCACTGGCCCCGATTGAGCCCCAGGATGGATGTATATCATTGTCTATGACCATGTCTGTG  
CCATGACTGCCAGAGAGTCTGAAAAGAAAGAAATCTGGCTATCTTGAAGTGTGTAATGGAAGGGCTTTGTTTCCCACT  
AAGATTACATGGCAGGAAATTCATCAATATAGGAAGGGTTTCAGATACCAGAAGGCCACAGTCTGACAATACATAAT  
CAACTCATTTTATCTAAAGGCATTCTTTGAACCTTTAATTTTCTTCTGCTGACATCTTTATTCTTTTAAAGCCCCCTT  
ATTAATAGTCTGTATTTCAAGTAGGAGAAGAAATATAAGAGATATCCTTCAGTTTCTTTTCTTTATAGCTTTCTTGA  
AGTTTCTATAAGCAATACTAAGAGGTAATATAGCCTCTGTCACACCCCCACCCCAAGAAATTGGATTGGAGAAGTGAAC  
ACACCTTCTGAGAGTGCAACTATAAAATAGGCCTAGAATGGATCAGATGAAAGGAATAAAGCAATTAATTAAGTGG  
GGCTTAGATGTTGCTTAACTTTGGCTTTTCTCCTCTATAAAATCAAAATTATAGATCTCCAGGGACCTAAATGTTA  
ATTTTGGGATGTATGCCTCATTGCAATTCAAAGATAGGTGGGTGCTTAACATGAGGAAGTAGAGTTTAGTGATTACAAA  
CAGGGTGTGGGGTTGGACAGACCTGGGTGCAAGTCTTGTTCAGCTGTGTGACTTGGGGCAGATTTCTTACCCTCTG  
AGTCTGTTTCTCATTGAAAAAGGGCAGTGGTAATCTTATCTCACAGAGTTGGTATGGGAATTGAATAAATTCATATA  
TGTAATCCCATATTAAGTATTTAGTAATAGCTATTCTCATTCTAATTCCTGTTATAGGAGAATAGAGGAGAAGTTGG  
TTCTCTTAAAGTAAAAATGGGTTGCTTTTGGAGGAATGTCAAGCAGAGGTGAGTTGACAATGCAATGGGTGTTGTAGA  
GGAAGATCTAGCACTGGGGAGTAAGTGTGGTGGACTGAGGGATGTCCAGGTTCCCTTCGATAGCTAACTCTATGGTAC  
AGTAACCTCTCTTGAAGACTCAGACAAGGATTAGTCTCTCAGCTGGGCTACTCCTGATGTTGATGGTGAACACCCAGCC  
ACTCAGGCAGTGTCCATCAATGTCAACCCTAATCTGGAAATGAAGTACCAGGCCAAGGTAGAAGCCTGTTGGTCTGTC  
CAACTAGTAACAGATCCGTAAAGTGACAGCCACTTTTACCACCATCATTATAGCTCTGACCCTTTCCCTGACTTGAT  
TTGGCCAATGTGTGTGTGAGTGGTGGATGGAAGAAGCTAATACAGCTATGGCCTTCTTCAATAATGGTGAGGTACCAC  
TATCATTTGCAATCAGTTCAAAAATAGGAGGTCTTCCAGCTGGGCACTAAGAGCTAATCTCTTGGGCAATTTTTTTT

Fig. 6.49

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TATTGCATTCAACCATAGANGATTAAAAAAGAAATGGCATTCTCTCTCCCAAAGCAAAACCTCTTGGATTCA  
TGGTCTATCCTAATTATATCTTCTGGGGTAATCCTGAGAAATCTTGTCCATTCCAGTAGAGCCTGTGCTGTGAATCANC  
TGTAAGAGTGTCTACCTAGTTTGTCTACAGTGAAGAATTTCAAGGTCTAAACTCTATGAACAAATTGATTAGGGTAAG  
TTATTGCCTATAAATGTGATTAAATTATCTATAAGGAATTTTATCTGATGGTTTTCCAACATGAGAGCTCAGGCAG  
AATAGCACAAGGATGAGATTATAGATCTACTCATGATTTTCAAGTACATAATACACTGTCTTAACATAGTCAACAC  
CTTGTGTAATAGATCCCTTGAACCTTATTTCTCTAGCTAACTGAAGTTTCTCTATCCTTTGACCAATATCTCTCCACTT  
ACAACCTCTCTGTCCCTAGCCCCAGTAAACACCATTCTACTCTCTGCTTTTGTAGGTTTGAACCTTTTAAATTTTCACAT  
ATGAGTGAAACCAATGTGGTATAGTGTGTTTTCTGTGCTTGGCTTATTTCACTTAATATGATGTCTCCAGATTGAG  
TAATGTTGTTGCACATGACATGATTTCCCTTCTTTTAAAGGCTGAACAGGATTCCATTGTGTATATATACCATATTTTATT  
TACCATTATCCATTGATGGAACCTTAGGTTGATTCCATATCTTGGCTATTGTGAATAATGCTGCAATGAACATGGGAG  
TGATGCTATCTCTCAAAATGATTTCATTTCTTTAGAAATCTACCTAGTCATGGGATTCTCTGGATCATATGGTAGTTTC  
TATTTTTAATTTTTTGAGAAACCTCCATATTGCTTCCCAATAGGCTGCACTAATTTACATTCCCATGAACAGTGTGCA  
GATGTTCCCTTTTTTCCATATCTTGTCTAACACTTGTCTAACTTTTGTCTTTTGTATGATGTGTTTAAACAGATATGAG  
GTGATAGCTCATGTCAGTTTTAATTTGTAAGGGAAATGCACATTTAAAAATACCTGTGAGTGCTAGTAGTAAATGTGGGAG  
TCCTAAAAATTTGCATTGGACCAGTGAAGAATTTCTTTTGTGAGGCCGGAATGGGCTAAGAGTCAGAATGACCTAG  
TGTTCTGCTTTGTTTTCCATACAAATTTCCCAACCTACCTTGAAGTCCACGTCTGAATTTGGCTGTTGAAGGCTTTAATTTT  
CAAGGAAAGGAAAGGTCTGCCTGGGATAAGTCGGCCAGCAAGTCAGCAGAAGCAAGCCTAAGACTAAGGAAACACAGAT  
CTACCTGTGTCTTAAGGCCAAGCTGGCATAGATACCTAACTCTGGGTCTTCTCTGTCTGGGGGCAAAATCTCCAGCCTT  
GAATAGGAGTCAGACCTGTTATGGTGGCTTTTCACTGAGTCCCATCTACTCACGAGGCTGAGGCAAGGCTCCCTTGAAG  
CAGGATCCCTTGAAGCCAGGAGTTTGAAGGCTGACGTGAACCTTATGATCACACTACTGCACTCTAGCCTCGACAACAGAGC  
AAGACCTGTCTCTAAAAAGAGAAAAGAATAAAAAAAGGAGTTAAAGTTAATATAGAACAGAGAGAGGGAACAG  
GTCTTCTCAGATGGGGTAATCCCTGGTTTGAACCTTCTTCTAGCCCCATGAGAAGAAGACCCGTAAGAAAATAAGGGAA  
GAAGCCAAAGAAATATGTGGCAGGGTCTTTCCAGGTGGCAGCAGCCCCAACCCAGTTACCTTCTGACTTCATAAAGG  
AAGACACAGGAGGCTTTTCTTATTTTTTACTCCTCTCATTAGACTCCACCATCTGCAAAATGTTGTCTAATAATAAATCTC  
TCAGATCATCTATTTTAAACATATCTGCTCCTTTGTGGGAAGAGTGAGTGTGAAAATTTGGGAACATGCGCAGTGGATA  
AAGCTGTTATTTTTATGCAAAACAGAAAAGAGCAGTGCCCTTTTGGGTGGATGTAGCCCTGTACCAGTGCACACAGCTT  
GGTATTCTCAAAGAAGCCCAAAAACAACCAAGGAGGCTGTTCAGCTGGGCACTAGTAGCTGATTCTCTTGGTAACCG  
TGGGCTGGGTTTTAGCTNTCACATGCCCTGCTTGAGCGGAGTACCTTTGTGTGGTAAACAACCTGGACCATCTACATGG  
TCCCTTGGTGGTGGTAATGGGCAGGCTTAAGCGGTGTGATATTGGTTAGGGGGCTCAAACAACCTCATGGAATGGGCACC  
TAAGCAAGGTAGAGAGATGCAGAGCGGGAGGGAGGAGTTCTGAAGGGAGTTTGGCTTGTGCTTTTTTTTTTTTTTC  
TTCTATCTTGGCACCTTTTATTAACAGAACACAGTGTAGATTATGCATTGTATTTTGAAGAAAGAGAAATAAAGG  
CGTAATCTTTGGCTTTTGGAGATGTTTTCAGTCTAACTCAGCAATCTCTTTCCCTCATCTTTCTGCTCACTACTTATTA  
CATTTACTTCTAGTTCTTCTCTTTTAAATTGAAGGAGGCAAGGCAAAACAGACACTGTGATAATGGAATTTTATGTTG  
TGGTCTTTGATTACACTTCCCTTCCAAAGCTTCAATATTTACATTGTTAATAATAATGTTCTTTGTAGGAAAAATCC  
TTAATTTGAAGATGTTGCAGATGGCCTTTTATCAGGAGCTATGGACTGTCAAAATAAATAGATATAATTGAACCATT  
GTTGTTGAATGGCCATCTTAAATAATAGCAGTCAAGTTTCCAGAAATTAAGGAAAAAACCCTTACATTTTAAAGGAC  
CTCAGAATAATTAGTGGTCTCTGTTGATTGTTTTCAACAAGTTATTCAGCAGATGGAGGCTGTGAGATTCTGCTGG  
TAGCATTATTTTGTAACTCAGTGGTGGAGGGGGTGGTTTATGCAACTCAGCATCACTCTTTGTTGAATGGATTG  
GTTTAAAGAGAAATCCCAACCGACCTGTACATTAAGATGGAGCATGAGGAAGGTCTTGGGACCGAGCCATTGAAGAAAAT  
CTAGGCTCNGGTGGGTCACTTTAGGAGTATTAGTATGACCTTAGACATTAGCTCTTGGAACTACCCTGAAGGCGAAAAT  
GTGAGACAGCTAATATTTCTCTGCAAGAATTCCTTTGGGTTGCTGAGTTTGGTTCTTGGCACTCAAGAAAATGTTGTAC  
CGGAGCAAGATGTGGAAGAACCCAGATGAGAGGATTAATGTAGATTATGAGCTCTGCAAGTCAATGATGATGATGATG  
CTGCTCCATCCCTGAAGAAAGATCTTAAACATATGTAAATAGACAAGACAAGTTATAAATGTAAATTTAGTATCTGGTA  
ACTGAAAGTCTTTACTTCAATTTGTACTGAGTGATTACCTGAATTTACTAAGGAAAATTTGGAGGTCACAGATTGAGT  
TGAAGTCAATAAAATAGGATAAAAGTCTAGATGATGAACTTAGCTTTTGTGATTAGAGTTCTGTTTAGCTCTTAAAA  
CTGCAGTAAATAAAATGTTATATTAGTGGAAAATACAAATGGATTGAGAAAATATAGACAAATCGATAGGCAATTGAAA  
TGTATACATTTTATTTTCAACATATCAAACCTCGAGTTCAAAGTTCTTCAAAAAACACAATTCCTAAATTAACCTTAC  
AATAACTGTGAGCATTCTTATCCCATTTTCACTGCTACAAACCAAGTTATGGGAGAAAACCTTAAAGGAGGCAAGA  
GCTGCCACTATAATTTAAATATATTGTTCTCCACTCTTTTACATATTCTTGAAGCAGTTCAATTAACGGTGACCTTG  
TGTAAGAAAATTAGCATTGTGCAAAAAATCTTTGTATGTGTTAGTTTGTGTGCATATTTGGAGTCTTCAATGTTA  
AAAGTATAGGACAGACCTACTTGACAAAGGTGAATTTTGTGCAAAATTTTGGGAGAAATATAGATTGAAATTCATGTAAA  
TAAGATTGAATAAAATCCAGATGACTGAACATATTTCACTCTTTTGTCTAATAGAGCTTTTATGAGCACTTAAGCTGC  
AAAAATAAGAGGTTATATTAGTAGAAAATACACATGGATTGAGAAAATTTAGGTAAATCTGTAGATAATTGGAATATA  
ACTCAGGAAAACATTCAATGAACCTCTTTTCAACACATAGATTAGTACCCTAAGAGAGTTAAATTAGTGTGTTTACTG  
TGAAACTATTTTCTTCCACACCAGAATCTATTGTATGTTGGCAAGAAAATGGAGTGGACTAGCCATTATTATCACCAGAG  
TTTATTACTTACTCTGGCCACCTCAGTGTTCAGTGGGTACCTAAAGTGAAGAGTTTAAAGTGGTACCTTTGCAATG  
TAAGTTTGAAGTGAATCCAGGGATATTGCTGTGAGTGTGGCAAAATGATTATTGTGGAATTTGGTTGTTGAATTTGAAT  
TTTTGTTGCTGGCAAAATTCACATTGCAAGTCTCTCTTTTAAATTGAAGAGTATTTTAAAGTGAATGCAATACAAACA  
TATCTTATCTTGAACCTCTTGAATTAATTTGGTAGTGTGTTTTTATTTGTAGTAGGCTACTTATAGAGTTCTTTTTCAT  
AAAACCTGAAGGTTCTTCTTCAATAATCTTGCAGCTTCAAGGGGAAAAAAGGAAAAAAGAACTTATTTCTCTTAGA

Fig. 6



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CCCTTACTGTACACCTCAAGTATTGGACACAATGTGCGATGCTTAAAGACTCTCTTGGCTTAGAAAAAGCCTTTCTCCT  
CTCTTGGCAAATCAGGCAATGTGAAATCAGTAAGGGCCAGTTCTCACTGTTTTCTATGAAGTGTTCGATGTGTGA  
CACATCCACCTTATGGAGGTTAAGTTGGTGTGTCTTGGGCTCACAAAAGCAGGTTGTGGAATTGGTATAAGCATT  
GATTTATTTGAACATATCTGGTGGTGTGTCATTGACTGACCCCTCTGTTATAAGCTTTCTTCAAAAAAGTCCATCAG  
AGACTTGAAGTTTCACAATCAAAGCTTTGTTTACTGGGCATATTTTTCAGCCTCAAGGAAATCTTCCCTGGCTCCCTGT  
AGAAGCAATAGTTACACCTTCTTAGGGGAAGAACCCTTTAAATGTGTGTCACATCTTACCTCTTTTACTTGAATAA  
GAAGTTTACAATCTTCCCTGTGGTATCCTTCTTAGGGGAACCTAGGAAGAAATGTTTATGATCATGAGAGTGGTAACTGG  
AAGCATGAAGTGGAGTACGGTGTTCCTTAAAGAAATTTTGTCTAAATTTTTTTTTTAAATGGCTTTCCAGAGTCA  
GGCAAAGGCCAGTTTCCCTTGATATTGGGAATTTTCAAGGTGGGATTAACAAAAGGCTAGAAAATGAAGATGGAAGGG  
ATTTATAGCTACATAGCAGCAGCATGGACAATTTCTTAATGTGCATCTCTAATTAATATTGGTGTATTAGCTTATTAA  
TTACTTCAACAAATATTTCATTGAGTATCTCTGCCAGGCAAGAATCTGGGCACCAGAGTTACAAAAGTGAATGAGGCACA  
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TGAGGCTTACCTGTTTCTCAATGTCTGTTTCTGAGGACAAATAATGAAGAACTTCAACTAGAAAAACAAAAATCA  
TATTCACAGTTGGATTGTCTGTACAATATTGTCTATCAGTAACTCTAGGAATGTAATGGTATTATAGGACTGAGTGTGA  
CATTGCCAATTTTCAAGTTGTAAATTTGTTCAAACCTGCAAGTGATAATGTGGTACTTTATTTTGGAGGACAAACAA  
AAACCATCAGTACAACTCAGGGTATCTTGGTCTTAGAGATCTCTATTACAAATGATTCCTTACACTGTGTGAAGTAT  
GAAAGTTCTATAAAAGATTTCTCCACAATTCATTTATAATAGTCCGTGTCAGTAGGTTTTATTAAGTCTACTTTTCTG  
TTGAAAATATGGAGTCTCAGTAATTTGTGATTGAGTTAGTCACTCCAGGTATATAAACCAACAGTTTTCAGAGGGTCTTG  
AATGAAATATCTTCTGCCTTTCAATCCAGGGAAGTTGTACTATACCTCAACAAGGACTAAAGGTAAGGGCTAAACATG  
GAACATCAGAGTCAAAATGATGAGAGAGGCTTATCATTCTTAGGTTGCTCAAGAGGATGATGTGAGCAGAAATAA  
TGGCCCCCAAAGAGGTTTATGTTCTCATCTCTGGAATCTTTGAATACGTTATAGGACAAAGGAGAGTTAAGATTGTGGA  
TGAATTAAGATTACTAATCAGATGATCTTATAATAGGGAGATTATCTGGATTATCTGGTGGGCCCAATTTCAATATT  
TTAAAGGTAGGACAGGAAAAGAGAGGGAATTTGTACTAAGGAACTAAGGGGAGTAGTCAGAGGGATATAACATTGCG  
TTCTTTAAATATGAAAAAAGGGCCACAAGCCACAGAATGTGGATGATCTCTAGAGCTGGAAGGCGAGGAAAGAGAA  
TTTCCCTTAGAGCATCCAGAAAGAACTCAGCCCTATGAACCTCTTGGTTTTAGCCCACTGAGACTCATAGGACTTCTG  
TCCTATGGAAGTGTGGCATGATAAACTTTTGTGTTTTATGCCACTAATGGTAATTTGTTAAAGTAGCAGTAGGAACT  
AATCTGCGGGTGGCTGTTAGAGCTGATTTATAGCTATCTACCTTCAGAGCAGACAGTGTGACTGGGAGCCCCCTGTG  
ATCACCATGTGGGGATGTTATAGGTTAGATCAATCATTATTATTAATTAATTAATTAATTAATTAATTAATTAATTA  
TGGTACAAGTCACTGTTCTAGGCCAAACAGTAAACAAGACATAAAAAATCTTGCCTTCATGAAGCTCATTGTAGAA  
GGGAAAGATAATAAATAAGTAAATGCATCATATATTAGATAGCGATAAGTGATGAGGAACTGTGAGGAGGTAAACAGT  
GATAGGAAGCAGTGTGTGTGTGTGAATATGCATGTGTATATGTGTGCATGTTTATATTAGGTTTGTAAATTTTAGATGG  
GGCTTCTAGGGCAGGTTCACTGAGAAGGTGATATGTAATAAAGACCCGAGGACTTCTTTTAGGAAGGAAGAAACAGCC  
AGTGAATTTCTATCCCAAGCAAAGGAAATGCAAAGGCTCTGAGGGCAGAGGGTTCCTGGCACGGGAGGGATGGGAGATG  
GTGAATAGGTGAGAATGTAGGTAAACTTCAAGGTGCCAGGTTGATTTTTTTTAAATTAATTAATTAATTAATTAAT  
CCAAGCCTTGGAGATTTTCTCCTCAGCTGGTGGTTCTTGTTTTTTTTTTTTTTTTAAATTAATTAATTAATTAAT  
AAAAGCAGACCATTTCCAAAGGGCAGCCTAAGGGAGCTGGAGGCAGAGAGTATCAGAGAGTGTTCAGTGTGATAACC  
AATTTTATGGATCAGTCAATTTAATTAATAAGGAGAATGGGGAAAGTGATGCAACAATGTAAGTCTGTTGGCATT  
TCCTTGAATGTTGAATACCTCTTACTTTTCAAAGGGTAAGGAATTTGGTTAGTGAAGTGAACAGGCAGAAATGGGGTT  
GCGCTAACTCAACAGAGGTCACAGAGTACTGTTGGCAAAGGTTGGCCTCTTTTCTTGTGTCACGTGGCTCGTATTT  
AATATACTACTGAGAAATACTTTGATCTCTCTGCCTTTAGACAGAAGTCAACACCATATCCCCCTAAAGCTATTGGC  
TAGCAATTTCTTAAACAAGCAGGCTGCACAGAGCTCTCATGTGACTCCAGCAGGGGAGGAAGGGAGGAAGTTGCATGG  
GTTGGACACCCAGAGCTAAGAAGTAGAGAGATGTAGTGAAGGGCCAGCAATTTGGCAGCAGTAGGCTGCAACAGCCA  
CACACTTGCCCCGGGAAGTGGGAAATAGGAGGGATGCTAGAGCTTGGTTCTAACATGGCAAAGATCTATGAGAGCGAG  
AGAGAATAGTAATGGAGTAAACCAAGGAAGAAATAAGATGCCTCCAGAGGGATATGGCAGCTTTAAACATGGCCTCA  
AAATCCTTTGACACTCCTTCCATCAAGAAATGGGGTCTATGTCTCTTCCCTTGTATCTCTTGTGACTGCTTGACCAA  
TGGGATGGGGTAGAGGTGTGAGTTTCTGGTGCAGACCTTCAGAAATGGGTCTGCTTCTACTTTGTGTATCTGTAGAGGCT  
TGCTCCCAAGACCCAGCAACATGTTGTGAAGAAGCCCATAGAAAGGCCGTATGGAGAGGAACTGCAGTCAGCCATG  
TGTGAGAGTCATCTTTGAAGCAGATCCTTCAGCCTGTCAAGCAATTCAGCCGACATTACATGGCACAGAGATGAGCTG  
TGCCTTCTGAGCCTTCCCCAAATTTGATAGTTTGTGAGAAAATGAAATCACTGTTGTTACTTTTCACTACTAAGTTTTAA  
GGTAGCTTGTATATGTGAACGATTGTAAACAGGGTGCATTTTAGGTGACTAGGAAAGAGAAATACCAGGTTTTCATGCAA  
TATTGAGGTTGCTTTGTTATTCAAGTATATAAAATATAAATCATATGATTAAATTTTTTAAATCATTAGAGTTTTTTT  
ATTCTCTCCTTCGAAAAATGCACATATGCCAACCTTTTGAATACAGTTTCAAGAGTCTGAATACCTTCTACATCCATCC  
ATGGGCATAGACTCCAAGCTGAGAACCTCTGTGGTCAGAATTTCTTCTCACTACTGTGTTATAAAGTGCAATTTGGTGT  
AAGCTTAGGGAAGGAGAGGAGAGACACTGGACTTTCTATTGTTAGACTGTATTTTATTCCAAATCCTTTTCATAGAT  
TTGCTCTTTGATGGAGATAAAGTGTAAACCTCTATATCATATTCTATATCTATATGATATTCTATATCATAATTT  
CTTGGATGGCAAATGTGGATTAAATTTCTGTCTTTCTTCTCAAAGGAATGTGAAATTAAGAAAGAAAGAAAGAA  
AGTGAATATGCTTAGAAAAGCCATAACTTGCCCATAGAGGTACACAATGAATATTGTTGTAATTTTGTGATTTTGT  
TTGATAATGGATTACTTAATTAGGTGCTGTGGTGTATGATATAGATACTGTTTTCATCCATGGTTCTGGCTTCTA  
GCTCCCATAACTCTTGTATTAATGTTGGGGCACTTTAGGCCTCAGGAAACGGAATCTTCCCTCTAACCTTCTCCTGTC  
CTCCTTTCACTTGCCCAAGGCAGGACTCTAATCTGATTGTGCGTCAAAATACCTCATTCCAGATCCTGTCTATGCA

Fig. 6.51

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GCACATGGATGATGAAGCTGGAAGCCATCATCTCTCAGC...ACTTAACACAGAAACAGAAAAACCAAGCACCGCATGTTCTCACT  
CACAAGTGGGAGTTTGAACATCTGAGAACACATGGACACAGAGAGGGGAACAAATATACACCAGTGAGGGGAGGGAACTTAG  
AGGATGGGTCAATAGGTGCAGCAAACCCACCATGGCACATGTATACCTGTGTAAACAAACCTGCACGTTCTGCATATTTAT  
CCCATTTTTTTTTTTAGAAAAATAAAGAAAAAACCCCAAAAAACCAATACCTTCATTCAGAAAGAGTCTCTGCTCTA  
TACCTAAGAGGAATGAATGCTACACAGAGAGGCCAAGAAAAGTCTGAGTAGATAGGCATTGATGGGTTTTAGATCATGCA  
CTTTTTGTCCAATCACATTTCTACAGGGTTGTCAATCATGTTTATGTAATGAAGCCTCCATAACAAACCCAGAGGATTG  
GGTTTGGGGAGCTTCCAGATAGCTGAACACGTGAAGGTTCTTGGAGGGTGGTGCATCTACGGAGGACGCAAGGCTCAT  
GCATCTTCCCTCATACCTCACCCTACACATCTGTATCCTTTGTAATATACTTTATAATAAACTGGTAAGGGTAAAAGTG  
TTCCCCTGAGTTCTGTGAGCTGCTTCCAATTCCAGTTAATCAAACCCAAAGAAGGGGTCATGGAACCCCAACTTGAAG  
TTGGTTGGTCAAAGACACCAGACTTCTGACTGGTGTCTACAGGTGGAAGCATCTTTGGGACTGAGCCCTCAACCTATG  
GGATCTGATGCTATCTCCAGGTAGATAGTGGCAGAATTGAATTAGAGAGCCCCAGTCTTGGTGTCCACTGCTTGATGTGT  
GGGGGCAAACCTCCACACTTCGGGTAAACAGAAGGCTTCTTCTGTGTTGATGACTGTTGTTGGTGGCTGAGAGTAGA  
GGAAAAACAGGTTTGAGAGAGCTTTTTCTTGACACAGAAGCCAGACCTTTAAGGGCAAAGTTTTGTCCTATAAAACCA  
CCTGAACACAGGTCCTCCAGGGAAAAAGCACCAAAGGGTATAGGAGTGGAAAGAGGGGGTCACTACAGGCATCTCGCC  
CTGTCAACCATGTTTACATTTTACCCTCTGTTATCCTTCATTTTATAGTCAGTGTAGGGGAAGTGGTGTCCATGCTTGATGTGT  
CGCAAAGATTGGTATCAGTTTACACCAAACAGAACACATCTGCTGGTGAGCACAGGGAGTTGGAAACAATATACACAA  
AGTCTCACAAATAGAAAAGAACATGGATACTGGCTCTACATTGACGTCACTGGGATACAAAGTCTATTTACATTGTT  
TCTTATGAGGTGAGCAAAACATTTCAAATAGCAACTCCTTGGCTGGCTGCAAGTGGGTCTGCAAAATGTGAAATAAAACAT  
GAATGACAGACTGACTTATGAGCAGGACGTTCCAAGTTTCTTCTTTGCTTTTTCTGTAAACAGATCACCTTGTCTCTG  
TTACTGCAATGGTAGATTTTTATCATCTCAGATGAAAGAATCCTAGTGTGGCCAGGGCAAATCCAAACACAGGTGAT  
GAGAGGCAACCCCAATGTTAAACCTGATCCACTGTGGTTATTTTCTTTCCATTGGGAAACTATAAGGATGCAAAAT  
GGGAGGAGAGTAAAGCAGCAATCAGTCTGCATGGACTGAAGGCAATTTAGTTTCTATCAGACATGGTGACAGTGTAT  
CAATGCATCAAAAATCACAACAAACAGATGCCAAGACAAACTGTGTCAAGATCCAGATCAAAGATATCTACCATA  
TGTTTAGCTTTTCAATCAATGTACATCAAGTCAGTTTGAACCTAGAAGCCTTTAGATATACAGTTTCATTACTTCTTTCT  
CCTTTTTCTCCTCTTTTGTCTCCAGGAAGTTCCCAAGATCCGAATTTAATCATTTATCAGTTTGGGTATATTTGCA  
ATAAATGCATTGCTTGTGTAGTGGATCCAGTGAAAGTTCATGCGCAGGGCTGCCCTGCCCAATGCTGCATGGCTTTCTG  
CCCCATCAGTCTGGAGCTGGCAGCAACCCCTTCAGAGGAAACGGAAGCAAGTGACCTAGAGGGGCTGCAAAGAGTCT  
TAGGAGGGCAATTACAACACGCTGTTTCTTCTTTTAGGAGTATCTAATTGGGTCAATGTGAAGGCAGCTCACTGTCAG  
GCACATAGAAGAGACTCTGAGTTAGAGAGGTTGAAATGTGGTCAAAAATATCCATGAATGTATTAATCCATAAGGAT  
TTATTAGGGGCTCTTAAGCATTGTATTCCCTTTAAGGAATCACTGCTAATAAAGAGGCACACAGCTTGAGAGCTGAA  
GCAGAGTGAAAAAATTGATTATAGCTCATAGGTAGAGAAAGCAAAATCTTAATAGTCAATTTTTTTTTTAAAGCAGC  
TACTAAAGGGAAAAATTACTATATATTTTTTCCAAAGTTTCTTGGTCTGGCTGTTGTTGTCATTTTAATACAGATT  
TATTATTTATTTTGTATAATATAACTCAGGAATTATTTATTTAATTTTTCTCTTTTTTTTTTGCAATTTGGGCTTGGT  
GCTGGGGAAACAGAGACAAATTAGCAGAGTCTTTCTTGTGGGAATTCACACTCTGGCAGCCTGGTGTAGCCATGTG  
CACAAACAACTACTGTGCAATTTGATGAGAGAGACAGAAGGCAGGGCAGTGGAAGTGGCCAGCTAGGGTA  
CAAGGAATTGAGGGAAGGCTCTTGAGAGAGAAAGAGATCTGAGAGCTGTATCTTCTTAAAGGTTGGTGTATTCCAGGT  
AGATGAAAATAGGATTGGGAGACAGAGGTGGACATTTCTGAGAAGGGGGAGTAGTAAGTACAAAACAGAGGTGGCAATAG  
CATTATGGACTTGGGGACCGTTAGTAGGTTGATAGGATTATAGCACATAAAATATTAGACCAAAAGACTGAGAAATGAT  
GCTGGAGAAAGAAAGTAGGACACAGGTGATGGAATGACTTGCAGGCTGCACCAGAGGCAGTTGGATTATGAGAGCCTT  
GGAAGGTTTCTGTGGCAAGTGTGGCAGTGCCCTCTCATATTTCCCTTGGCAGTCACTGTTACTGTACAAGACAACAGC  
TACAAGTCTCAGAGACTACAAGTTTGCAGACTGTAATGAGGCAGGCCAAAGCACCAGAAGTTAACATCCTTGAGAGC  
ATCGCTCAGACAATGATGCATGAATGCTCAGATTCTTCAACCTTGGTGAAGGTAGTCTGACAGAGTTTTGTATAAT  
ATCTTGGAGGTTCCCGGTGACATTGAGTCTCACCTGATCAGACAGATTGTCTGGTCAATTTACACACCAGTATTGTTCTCT  
TCCCATACTTGCCATTCTTCCATACCCTCTACATTTTGCTTCTGGAATCCCTTCTCGAAAACTACTCATGCTTAA  
TTCTTAGCTCAGGCTTACTTCTGGTGAATCCAATCTGGGACAGGTTTTTGGCTTGTGGAGGAACAGTGGCAATGAAG  
GCGGAGTCTGGATGATTTTCATGAGAATGCAAGAGAGAGTGAAGACTCTGGTTCAATTTAGAAAGCAGAGTTCTGTTGC  
AATTATGGCCAAGCTGTATTGTATTCTGGGAGACAGGGAAGGACTTTTCATGATGATTCAAGGTTTAGGTTTGTGACTGGT  
GGGATCCATTAGCAAAATAAGGAATACAAGAAAGGAATAGGATTTTTGGTGAATGTGTGGGATTGGAATTTGATTA  
TGCTGAATTTGAGGTATTTCCATGGACAGTGTAGGCAATGGGGAAGAGGACTAGTTGCGACACCCAGTTTGAAGCTG  
AGCATCAGCCCTGAGTAGTAGTAGAAGAAGTGGGTGTGGCTGTGGTCACTAGTTCGACACCCAGTTTGAAGCTG  
AAGAACCCCAAGAAACAAACTTCTGGGAGTACCAACCTTTAAACAATCAAATAGATGAGGAGGAATCTGTCACAGTGAA  
GGAGTGATCTGTAGCACCAGGCAAGGGCCAGGGGAGTGATGCTGAGAAAGCAAGAAAGGAATCATGTCAGGAGGAGA  
GAGGAAGCAAAACAGAGTCAAGAGCTCAGAGAGGCTTGGCAAGGTGAGACTTCAGGCTCCCATTGGATTGGAAGTTGA  
GTGGTCAATTGTTTATTTAAGAAGTTTCACTACTAATTTGGATCAATTAGAAAAGTAGTAGAGATTACCTCACTTAAGACA  
TTTGTATTTTACTTGAAGAACTAGGCTAACCAATAATGCTAGGACAGGAGTGTCTTAAATGAATAGGTAAGAATAA  
TTTCTAATTATAGGGTGGCATGATTGCGTTACCATACTGAAAAATGCTGCCCTCTAATTTGTATGATTGTTATGAAGT  
TCAGTACTGGAAAGCTTCAAGTTTGTTCACCTAATTAGGTAAGGGTTTTTCTTTTAAAGCTAGTGTGTTTTTGTAGTT  
TCAAGTTGGTCCCTATTTCTGTTTGAATTATCAGAGTTTCAATTTTATGTTGCCAAAAGATAGATTTAATACCATAG  
CTGATGCCCTTTGAATTTGAATAACAATTTCTATTTTCTTTATACTATTTAGTTATTTGTGGTTAAGAATCTGGCTG  
TAGAGTTAGACTGCTTAGCTATTACAGTAGCTTCAACACTTACTCTTTAAGATCCCTGGGTAGTACTGTGCTTCTCTG

Fig. 6.52



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TGCCTTGATTTCTCATCTGTAAATGGAGAGAATCAACTTTTTTTCAGAAAGTTAATTCTTAGTACCAAATGAGCTAA  
TTCATATAATGTATTTAAAGGCATTTTAAATGGCACAGAGTAAATGATCAGCACATTTTAGCGTTAGAAATATTTGTTA  
GTATTTTTTCTATTTATAATTTGTTACTATTACTAAAACTGGGAGGCAGAATAGTATAAAGTGATAATGATTGAACCTA  
TAAACAGATTAGGGTCTGCTCTCAAATTTCCGCCAACTCTCTGAACTGGGACAAGTCCATTACCTCTCTGAGTTC  
ACATTTCTTACCTATAAAAGAGGGAGGTTAGAATAGAACATCTTTCAAGCCAGCCTTAGTTTAAATATTCTGGGAAGCA  
CACCTTTTGTCTTGAAGTAGCTGATTTACACAGTAGTCTTAGCTGTAGTGTGTTTTCCCTAAGGGAAAGATAAATGGG  
CTAAAAGGAGAAATGGAAGGCATTTCCATTAGGCAATTGCTTTCTGGAAGTACAACCTAATGTTTTGGTTGGTTTTATTT  
TCATGAATTCATTTCTTGGGCTAAAACATAAATCAGTTACTATATTCAGAGGGCTTATCATTTCTTTTTGAGTATAC  
TTATGTTTGGAAAAATCCAAAGTGTTTTTCATTTTTTGGCCCTGTTTTTTCATACCTTTTACAGAAAAATAATTGTTTT  
TAGTGCATTCATTTTCATTTGCTAATGTTATAATCTGTACAAAAACAGCCACCTAATTATTCTTTTAGATGTTAAACATG  
ACACATGTAAATAAATGATAATTATAGAATGTGGTGTTTTCTGTATCTTACATTTTTTAGATCTGAAAAATTGGTCCC  
TGTTCTTATTCTGCATGTACTCCAGTGAACTTTCCCTTGATGAGTTATTTTTTCATGCGCACATGGGGGAGCTTTTG  
AGACACTAGTTTGAATGTACACTTTGAAGACTTTCTCAACAACCTTGACCCTAAGATGATGGACTGGAACCTTCATGT  
AAGGAAGTGTAGCAGGGTGCAACTGGCTGTAGAAGTACTTCCCTAGCGCTCACTGTCTCATATGCAGCCCTAGAACCA  
ATTCATAAATCTCTTTGAAAGATAGCCATAAATCATGTATCTCTCACACAAAGAGTAGGGCTAAGAAAAATGAAAAACGA  
AAAGTGAAGGCAGATCCAGTATTTTCTAAAACTTCAGTAAGAAGTACCTGAGGTCTATAAATTTGGGGGGCTGCCTCTTC  
CGGTGAAATGGGGGAGTCCAGTATTTTCTAAAACTTCAGTAAGAAGTACCTGAGGTCTATAAATTTGGGGGGCTGCCTCTTC  
ATGTTCTTCCATAGAAGAATAAAGTCTAAAAGCAGTATTTTGACAGCAACATTATTTAAAGGAGTTTCTGAAATGATCAAAAC  
AAAAGTGAAGTGGCTTGAGTTGAGTCCGATGCTCTTGGTGTCTAGCTCTGTTTGGCATTAAAGAAAAATGCAGAAAAATA  
GAAATGTGTTAAGTGAATGAAACCCCATAGGACCTTGACTGACTTTATTGTTATCTTTCTTTGACCTAATTTTTGG  
GGTAGCTAAACCCGCAATAAATATAGAAATAGACCTGGTGTAGCCACATAGATACATGAAGTAGCATCAGGAATG  
ACTGGGGCTTTCTCTGCCCCAGTTTATTTGGAATAAATCCAACTATTTTCATATATAAATATATATATATTTCAATG  
CTTATCATAAATCATCTGAATATTTTGCTCATAGACAACTTCTAAATGCCCTTAAATGAGGCTTCAATGAGGAAA  
TAAATACAGCTGATTTTAAATGTTATTTAGTATCAAGAAAAACTCTTAGCAAATATTTCTGTGAAAGTATACAG  
TATACTAGCTTAATATATAAATTAACAGAAATCTTTCATGATGAATGAAATAGGTAATTTGTTTTCTCTCTCA  
TTGTTTTTTCATATGTAGACAGCCAAGTTTCTCCTTCACAGTTTGTGTTCAACTCCTTGCTGTTTTTCTCTAATCT  
TTTCTCAGTGCTTATTCATCTCATGTTTTAACCATTAATATATTTCCATTCTGGGCTTTCATCAGCTACCT  
TTGTACATTTTCTATTGCCCATTGGATGTTCTTACCTGGATATGGAAGTCAAATTGAATGTCAGCTACCAAATTTACCT  
TCCATCTCCACTTGCTTCTCGGCTTCTTTTACCACCTCCAGCTCACCAGTTCTTCTGACTTTCCCGTATC  
TGTTCACTAAATACCATTTTCTGAATCACCTGGCCTTGGAAATTTGGTGTCTCTTTGACATTAACCTGTCTCATGTA  
CACTACTGTATCAGGGGTTCCCAAGGCCACCTCAGACTTGCTAAAAGGATGCATGGGACTCAGAAAAAGTTGTTATAGT  
CACAATTATGTTTTTACTTAGTGAAAGAATACAGACTAAATCTGAAAAGCAAAAGATATGTGGGGAAAAGTCCAGGAGA  
AATTAGGTGCAAGCTTCTAAAAGTTTTTTTCCAGTAGAATTGCACAGATGCCTTAATCTGCAAGCAATACCGTGTGA  
CATATGCAAAAGTGTGTCAACCAGGGAAACACTTGAGCTTTGATGTTTTTAATGGAGGCCAGCCACATGCATCACATGTTA  
ACCTGTATGACTTACCTCAGCTACTCAGACTTCAGCTCCTCAGAGAAGGAACAGGCAGCCATCATGCATCACATGTTA  
GCATAAATCTATCTGATCAAACTGGTACCACATGCTCCAAGGCCTGAGGCATACAACACTCTTACCAGGCAGAAATATACC  
TGTGGCTCAAGGCTTACTCTCAGGAGCTGGCCTAAGTTCAGTCTTGAAGAGAGGTTTTTCTTGGGCATGTGCAGGGCTT  
GAGCCACCTAGATTTGCTGAGTTAATCTTACTACATGCACGAAAAATCACAAGCTTTGTTGGTTACTGGGAAAATT  
CAGAGCACATACTGTGGTGTAGATATGTGTTTGTGTTTGTGATTTTTATTATCTCTGCCCTTTCTATCCAATATC  
CTGGACACATAAATACTAAGTGTATGTCGATTTCTCGTTGTTGTGATTTTTATTATCTCTGCCCTTTCTATCCAATATC  
ACTTCTTATGTTTAGCCTAAGACCTTATTGTGTTACCTTCAAGGTGCACTAGCTTCCCATATCAGTGAACCTTAGGATG  
TTACGCTGCGCTAACAACAATCTCCAAATTTGGTATCACTTGCTAAAACAAGAGAGTTATTTCTTGATGCTGCCGTTTG  
TCTATTATGAGTTGACTGCAGCTCTGCTCCAAAGTATAATCATTCTGGGACCCGACTGAAGGAACAGCCCTGATCGGG  
ACATTGGGGCAAAAAGAAAAGAGCGTATTATAGAACCATAAATGGCTCTTAAATTTTGCTTGAAGTGGTGCATATA  
CTATGTATTCCCATTTTATTGTCTAAAGTAAGTGACACATCCAGCCTGAGGTTATTGGATTAGGGATGTATACTATTC  
CCTTGGAAATGTTTGAAGCAGTAATATAATCTATCAACTTCTAGCTAGCCTCTGTGTTAAATGATCATTAGAGTATCTAA  
AGAGGCTGGAAGCAGAGAGGCCAGCTAGGATACATAATCTATCTGCTGACCATCACTAAGTTCACATCCTCAAAGTT  
CAGTGTGACAAACCATTTCTGTTCTCTATAACTGCCGTATCATGGTCTTCTCTTGATTAGTCAAGTCAAGCTCATTTTT  
AAGCTCAATCACCCATGACTTTCTTATACGCAAGTGAAACCATAAATTAACCAGCATCGGGCAGTTTTATCTTAGCA  
CCTTTTATACCTTTGCTCATACTTTCACTGAGATTGAGGGCTCTTTTTTGAAGTAGTTACCAATTCATTACCTTTGA  
ATTCTCCAGAGCCAGGTACCTTACCTGTGGTCTAGGCTGAAACATGTAATCAATTAATGTAAGAAGAAGTATTGTCCC  
AGTGTTCACAAAGAAATCCAGGTGCTATTCAATGACAGTGAGCTCAGGCCAAGGGGGTGAAGGGAGGCTGAAACCCAG  
TCCATGCTTTGCTCACAAGCCAAGTCTGAGATGGGATGAGGAGAAAGAGGTGCTTTTTTCTAATCTCATTAAAGCACT  
GAGTAGTGTGGTGGGGGCTTTCTTCTGGGGTTTTGTTTACTAAAAGACTTCTTACAAGAAGCTGTAGGCCCCACAAA  
GATCATATGCATGGACATTATTGTAGGGCAGCAGGAGAAAAATGCTATTTTGGTTCTGCTTTCTAGAAATTTTCAAGTG  
CTGGGCTACCAAGTCAACTAGCTCCTCTGCATCCTTTAGATGTCTGTGGCTGAGGACAGCTTCATGAGATTGGGTCTCTC  
AGAGCTGCTTTTGCACCTTCCCAAGAATAGACCTGTGGACCATGTCTTTTTTGTCCACCCAAGTTTTATTTATTTTGGGA  
CAGCACCTCTTTTACCAGAGAAAGTAACTCTTGGCGCTAAAAATATACCGGAAATAAGAATGAAGAAAAGTAACTGGAT  
CAGCTATACTTGGTAAAAATACCTAAAGCTCTGTTTCATGAAAGTGTCTTAAAAATAAAACTAGTCCCTGGCAATGC  
AGCAATAGCCAAAACGACTTCTTTGGTTGATTGGTTTTTAATGTTTTTTTTTTTTTTTTCTTTCTGTTACAGTTTTAA

Fig. 6.53

[illegible]

Fig. 6.54

[illegible]

Fig. 6.55

CAATCTCATTAAACACAAAGGTTTTTTGTTGGTTTTCTTAAAGGCAAGGTAAGGAAGTCCCTATGACATGGACCATGGTGC  
GCATGCTCCTCGTGGCTTGTCCCTGGGCGCTGGCTCATGAGTTTCACTCCCATCAACCCCCTCTGCATCCCGCCTCT  
CTCTGCCTTGGTGCTCTGGTCAGTTGACTCACTGTTCTGTCTGTGCACTCTGTTTCTAGCTGGAGGTTATTGGGTA  
TTGAAGAGGCTTAATGCCTGCCTCATCTTTCTGTGGGTTCTGAACCCATGGGGAAATAAAGACGTGGAAGTCAGAAGAG  
GATCAAAATGTCTCTCTGCTAATGGTACCCTTGTCTGTGGCGGTTTCCCTGGGCTGCCACCATTCCCTCTGTG  
CTGAACCTCACCTCTTCACTGACAAACAAAGCAGCAGCACCTGCCCTGGTGGCTTCAAACAAGGAGGACAGAAAAACATC  
TGTGCTGTCAAGGTCAGTGGCGAGAGTGGAGGAGAGTGGAAAAGGGGAGGAAGACAGGTAAGAAGAGAAAAAAAGGC  
ATAGAAAGCAGGAGAGGAGAGAGGAAGACAGGAGCAGGTTGAGGAGAGTGGGGTTCAAACAAGCAGAACACAGAGGAGAG  
AAGGAGTGGGACAGCAAGAACTGAGAGAGGCTGCCAGCACCATTGGTGGTTATGGGTGTGTAATGAAATATTTGAA  
TATTAGTCCATTCTCACACTGCTATAAAGACATACCTGAGACAGGGTATTTTATTAAGAAAGAGGTTTAAATGGGCTCA  
TGGTTCTGCGGCTGTCCAGGCTTCTGCTTCTGGGGAGGCTCAGGAACTTACAATCATAGTGAAGGACAGGCGGGAAG  
CAGGCACATCTTCACTTGGATGGAGCAGGAAGAAGAGAGAGAGAAGGGGGAGCTGGTACACACTTTCAACAACCAAGTC  
TTCTGAGAAGCTATACAGGAACTGCAAGGGGGACATCCCGCCCCATGATGCAATCACATTCCACCAGGCCCCCTCTCT  
CTAACACTGGGGATTACAATTCAACATGAGATTGGGTGGGGA...TAGAGCCAAACCGTATCAGAATTTTCTCAAGGAT  
CAAATAATTCCCTCTTCTGGCCCTCAGGAAATGAATGAATGCTAGAGCAAAGGAAAGCACTGCTTTCTCAATACCAA  
CAGGTGTTGATGGTAATTCTGTCTTTCATGCAATTAAGCAAAATGTGCCAGAGGGAGAAAGGGTCCCCCTAACCCCCA  
CATCCTGCCAACCTCCCTGCCCGAGAACACAGGTCACGATATTCCAGTGAACTTAAATCTGTCGATGCCAGAATGTT  
ACTATTAGCCATTTTCATGCACAGTGCCTAGGGTTGCAATGGCATTCTTAGACAACCTGCAATGCCTTTCTAACATTG  
TTGCTGAGGAATGTGAAGCCACATCGTTGTTTACCTGTAAACTGCAGAACACAAGCCTTCTGTCTGCAGGAGGAGGTAC  
GACTTTTCTTAAATTTTAAATAAAGAAACTTATCGTTGTTATTTTATAAAATGGGTAAAGTTTATGAGCATAATGGAGATC  
TGTTCTTTGAAATATTTGACGCTTGGACAAAACAGGGAATTGTAGAGCATCAAAAACATTTCAATGAATACAATAAA  
TCTCCTTCTCCATAATGCTTTCTTTTCTATCTCTGCTATAAGATCTGAAAAAGAACGCTCAGTAATGACGTACAGAAT  
GTGCTTTCTCTGGAGAGGGCAGGGCAGAACAGGACAGGTCAGGGCTGGACAGGACAGGCAGCTATTTCAGTCCAAGGGG  
AAGCAGGGGATCATGTTAGAGTCTGGGGACTTAGCCCTGGTGATTCTCTCAAAGAGATCATAGGAGCACTTGGCTGTG  
TCCTTCTGATGGGCTCAGAAAAAATTAAATTTAGTATTAGTGCTTATTCTTCAGATTCAAATAGTACAGAAGACATAA  
TGACAAGCATACTGAGCCAGGGCATCAGGACTCCCACTGGAAGGCCAGAGTAGCCAGGTCCCAGCAGGAGGGAGAAAT  
ATGAATTTGAAGTGTGAGATAGGACAGGAGAAATTTAGATTAGTATGACTGGGCAGCTTGTGGAACTCATATTCTAT  
TAAGAGTAGGAAGATGACCTAGTTTGGGCTATTAGGATGAAAAAAGAAAAAGAAATGTTTTTCAAAGTTTCCAT  
TTGGTGTATAATTTTTTTTTTTTTTTTATGAGGTTTCGCTCTTGTTGCCACGCTGGAGTGCAATGGCGTGATCTCA  
GCTCACTGCAACCTCCACCTCCTCCTGGGTTCAAGTGAATCTCTGCTCAGTCTCCTGAGTAGCTGGGATTACAGGCA  
TGCACCACCATGCTGGCTAATTTTGTATTTTATGATAGAGATGGGGTTTCTACATGTTGGTCAGGCTGGTCTCGAATC  
CTGACTCCAGGTGATCTGCCCACCTCGCCCTCCCAAAGTGCTGAGATTACAGGCATGAGCCACCATGCTGGCCGTTGT  
AGAAATTTTATTGACAAAAAATCTTCTTGTAAATTGCTTTTATCTCCCAACAACAACAAAAAATTTGGTTCTCCA  
AGAAGACTGTGATCCACCACCCGGAAGGCATGTTTACCAGGACAGAGTGATCTCAAAGATTAGGATGAGTGGTTGGA  
GCTTGGATTTAATTTTCTCCTCTCTTGGTCTGGTGACACTCACTTATTTCCCTTTTCAAAGTTCTAGAACTGTGT  
TCATTTAAGAGATTAATAAACAGTAACCTGATAAAAAATTCAGATATTCATGCCCTTTTAACTCTCTTGACTTGCCAGG  
TAAATCTCCTGGTTGAATTTTCATGTGCATGTTTATTTCAATTTGCAATGAAGTTTAAATTTCCCAAGGCTGTACNGCTGC  
AACTATTTTTCAGATTCTTCACTGCACAAGTTGGCTGGGCTGCAGGGGGTGAGTAAGTGCAAGACGGCCACCACTT  
GGCTTGGCCAAGCATTGCACTGAGTGATGTGAGTCTGTGCCAGCCAGAGGGAGGGATATCTTTTTCTTTTCAACAAAG  
GGCTAGTAAGTGGCCTTGATTGCCATAAGGTTCAATGACATCATGGCTACCTTGAGATGTGCCTGGTACAGTGCTTCA  
TGCACTTGTATCTGGTAAAGCTTTTGTATGATGGTCTACATATATTTCAATTCAGTGGGAACATTATATGTGTTTT  
ACTTAGGGAGAACTTCAACCACCAAGTGCTTATGCTTGAACAATAGTGGTGTTTTAGCCTTTGAAGACACTTGGTGTAT  
GATCTGACTTCTTCTTCTCTTGTATCTTTGGGCGAGTTATATACTTAGGTTAAATAGGCTCAAATGCTTGGTGTCTTA  
CAAATAAACATAAAGAGCTTAGCTTAGATATAAAACCCTGAGAAATGGGGAAAAAAGCAATGCTATGCAACAAACAA  
GGGGAAAGGCAGTAGGCAGGAACAGGATGGAAGTCCATGGAAGATGCTGTGATTCTCTTCTGCTCAGTCTCTCAAGTC  
CTGGTTCTTGTGTTTGAAGAACAAAGCAGAAATAGTGGGATTGGGATTTAGAGTTCTGGAAATGGCCAGATTTTTTT  
TTTTTTTGGTTGAGACAGAGTCTTACTCTGTCAACCCAGGCTGGAGCATAGGGGCATGATCTTGGCTCACTGCAACCTC  
TGCCTCCTGGGTTTAAAGCAATCTCCTGCTCAGCCTCCGAGTAGCTGGGATTATAGGCATGTGCCATCATGCACGAA  
TAATTTTTGTATTTTATGATAGAGATGGGGTTTACCATTGTGGCCAGGCTGGTCTCTAATCTCTGAACTCAGGTAACCC  
ACCCGCTCAGCCTCCCAAAATGCTGAGATTACGGGGGTGAGCCACCACGCTGGCCGAAATGGCCAGATTCTTAGATG  
GCCTGAACATGTAAGTCTGTTGTTTGTATTGGTTAATCTGAGGAATACAAGTTCAAGAAATGTGTAATCTCAGCGC  
CCTTGGTACAAGAGTGCCCTGCTCTAAGCCTTGTCTGTTTCAAGGAACTTGGATAATTTAGGTGTGATATATTTATCTATC  
TATTGATTATCATCCATCCATATTTATCTGTGCTATTTCTTTAGTACCAAAAAGGCTTGGCTGCACAGGTTGGGCAGG  
TGTGTAAATGAATGATGCAGAGAGATTTAAAAAACCGTAAGGAGTGTGAGGACTTGACAAATAGAGTATTTCCCT  
ATTTATAGGGAGTGGCCACTGTCAATCTTGGGATCTTGTCTGCAGAAAGGCAACATGCAGCTTTAGGGGGTCCAT  
ATCTTCTGACATTTCAAAGGAGCTGGAAATCAAGATGTGAATCAGATTATTTAATATTGACAAATTAATTCAAATGTT  
TGTGCTAACATTGCAAGACTTCTCCTCATGTTGTTGCATGCCAAGATGAGAAATATGTTGGGCACGTTAGGTATTTA  
TGTGTGAGTTTGTGACCTCTGCTCTGGTATATAAGTTTGGCCTTAGAAATATGTTCTGTTATTTTAAAGTTGAGTG  
GGAAGCTTCTCTACTTTTAAAGGTTTAAAGGAGAGATGTCATCTACTTATCCCTCTATCATTTGGAGGATAGGCTAG  
TTATGTCACCTGGATTATACAAATAAACATTTGTTGGGGTATTTAAAAAAATTTATTTTCTGAAGCGAGTCTATCAA

Fig. 6.56.

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GGTTTTTAAATGTGGTTCTTCATGGACTTCCAAGGAGGTTTAGGATTGGCAGTGAAAAGAAAGAGAAGATGGGAAGG  
ACACTTACATTTCTGCTTCTTGGGATAGAGGTAATCTGTATATTTTGGTTTTAAAAACAGATATTTAATCTTTTAGGCA  
CATTAATCTACATTTCTAAGAAGAAATAGGAACTTCTTGATAGAAATGCCACCTGTTTTAACGACTAAGCACCATGG  
CACTCTGCCAAGTTGAAAAACAAATCTAGGTAAATTTAAATTGGGCTGGCATTTCACAGAACTGGTGCAAGCATGGTTCA  
TAAAGTTTATTTTTTGGCTTGAGAAAAAATGACATTTTACTGATTCTGTGTAAGAAAACTTTAAGTTTTATCAAAG  
ACTATTAAGATCAGAATTCATATTTTATGATAGTATTTAATATTTTACAATGTATTATTTTACAATTAAGATTAT  
TTAATACAAATAACTTAATATTTTACAATAGAGTTGATTATTTTCTAATGCTTTCCTAAAGAAATTCGTAAAGATCC  
ACATAATTGCTAGACCAGTGATAAAGCATGTAATTTCCCTATCTTCAATTTTTCTTACTGTCTACCCCTCAAAGTAG  
TTGACAATGATCTTCTGATAGATCCTGGCTTGGGTAATACATTACACTGGCAGAGTAAGAATTCAGAAAATAGCTCAAC  
AGGATCCCTCAGTTTGGCTGGTCTTTCTGAAAAGACAAGTGTGAGCAGCCTGAGGAGAACCTGGAACCTCAGGTATTCTC  
TGTTTTCAAACCTCAGGAAGGCTGGGTGAATTCCTGGTAGAGCTGGTAGAACTAGCTTCTATTATGAATATTGAGAAGT  
TTGACCAATTTTATCAGGCTTCTGGAGTGATTTTGCATGATCAACTTAATATCACTTTTCTACTTAACTACCA  
GTAATTCACCTACTTGGGCCAGCCCAGTGTAGTTCAAGGTAAAGATCTTGGATTATTTTACATTAAGGTAAAGATT  
TGAGCTACAAGATCTTGAACACTGAAGCTCTGAATTACCGGGCTGGCCTCTGCCTTCTCTCAACATCATCTCCA  
GTGACACTGGCCTTCTTCTCTTCTTCAAATAGACTAAGCTCTTCTCACTTCAAGCTCTTGTGTAACCTGCTAGTCC  
CTGTTTCTATATGGCTCTTCTCCAGATCATTTGGCTTCTTTCATTTGGGTCTCAAGTCAAATATGACCTTCTTAGAGA  
GGTCTCCTCTGGTGATGCCACTTCTCCTATCACAGTATCCCATCACTCTGTTTTATTTTCTTCATAGCCCTTATTTGAA  
CTTATCTTACTTATTATTTGCTTCTATTAAATGTAAGCCTTGTGAAAGCAGTACCTTCTCTGTTGTACTTTATTGCT  
ATATTTTCAAGATCAAGGACAGTATCTGGCATGAAGTGAAGTCAAAAGTATTTGTTAGATGGACGAATTACAATTTG  
CCCACATTCAGTGGCTTACTTGTAACTCTGTTGACTCTTGATTGGTATGTAATTTTATATATGGAAGGATGGAAAG  
AATAGGTTTCGAGGGTAGTGAGGAAATAGTAAAGATGGTACTGTTGGAATTAGCTACATGATTTGAGCAGCAAATTC  
AAGTACGGCTTAAACAGAAAAAGCAATATATACTACTTGAAGTCAGACTGTATGATAATCTAATGGTAGATA  
TAGTTATATAAATCATAACACTCAAAGCTTTACCTCTATAATTCTGATAAGAATGGGAAGGCTGATGACATTTTTCGA  
GACCATTAATAAATGATAGTGAACCTTAGTTTGGCTTGGAGCTATCTGCATGGCTGATAAATGCTTTTCCAATAGAAA  
GAAGGAAACATGCAATTCAGGTGATAAGCAACCGTGATAAGCACAGCTAGAGACAGTTTTTAAACCTGAAACTCT  
GTGGTTACTCATATAATTGTTTATAAGTGGCTCATTGGGAACCAAGGTAAACAGAATTAATCTTTAAACATCAAACAG  
AAATAAATAATATTTCTTTTTTTTTTTTTTCTTGGAGATGGAGTCTTGTCTTCAACCCAGGGGCTGGAGTGCACTGG  
CATGATCTCAGCTCACTGCAACTTCACTTCCAGGTTCAAGCGATTCTTCTGCCTCAGCCTCTGAGTAGCTGGGACT  
ACAAATGCCTGCCGCCATACCTGGCTAATTTTTGTATTTTAGTAGAGATGGAGTTTTGCCATGTTGGCCAGGCTGGT  
CTCAAACCTCTGACCTTAGGTGATCCACCCACCTCAGTCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGTGCCT  
AGCCAGAAATAAATAATATTTCTTATCTGTACCTAAGACATGTTGGACAGGAGATGTCCCATGAAGCTGATGAAATT  
TTAAGTAAATGCATGAATAATCCATTGAGATTTAATCCTCATCAATCATCATCTTATTGTTACCATGTGGCAGAAAAA  
TGTGAAATCTGTTAAATGCTTCACTCTTGATGGAAAAATATGAATCCTTGTAATAAAGCTTGAAATCTCAGGTTC  
CAAAAGATGACTCATCTGACCTTCACTCATCTTTTAAAGACATGAAACAAAAAGAAAGCAATGGGTTTCTGTGGCCAA  
AAGAATTTCAACAACACAGTCCATTGGGAACAGATCAGACATAGGGAAGGTGGGTCTCATGACACTTTTGGTTTATTT  
CACATCTCTTGAGCAGAGCTCTCAGTATAATCTCTCAACAAGAATGTGTATTGCATTTCTGTAGGACATAAATTGCCT  
TCTCTCCTCACTATTCCAGCACTGATTACAAGCTTCAGCAGAAAGCAGAGTTTTAAATTCTTGTGGAATTAATAAATA  
GATAAGAGTAAAGGTATTTAGGGGAGACAAGGACATAGCCTGTAATTTAGGTGAGCAAAATCAGTAAGTGTGAGTCTG  
GGCTGTGACATGGTCTGGCTGACTATTATTTTACAAGTTTATAGGATCTTGGCGTTTTATTGCTTTATCAATTAC  
TGTGGACTAAGATGTGCGACTGTGATGTGGATTAAACAACAACATTTATTCTTGCTCATGCTGTCTGCTCATTGTGG  
GTCAGCTGAGTGCTCTGTTTCTTGTCACTCAGGATGGGTGATGGAGCATCCACCATCTCAACCTGTGTTAATTA  
CCATGCTTGGGAAGAAAGGAACTCTAAAGGATGTTACCCAGGTGGTTAAATAAGCTCATGTGAAATGGAATGTGAC  
ACTTCAACTCAAACTCATTGAACAGAACTCAGTGTGCCTGGCCCCACCAAAACCATCCACAAGGGAGGGCAGAAAGTC  
TAATTGTGAACAGAACTAATGATATTTACTTAGTATTTGTCTGCTTGATTTTGGCAGAGCTGATTTATTAGAGTGA  
GAAGGTAAAGCTGATTATCAAAGAATGCTTATTTTCTCATGTAGTTACCATTGATTTATTGAATCATGATTTCACTCT  
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GGGAACAGATCAGACATAGGGAAGGTGGGTCTCATGTGCTTGATCATCTACTATGTGCTTGATCACTATGCTAGATACT  
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GCAGAGAAGGTTCTTATTGAGGCTTACTCACTTTGTAGGGTGTGGTGGCGTTTGAGATTGTGTTTTCAAAGTGCTTAG  
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CAACTAATAATTCAAGTAAACACTGCTCACTTGATGATTAGTCGTGGAGTGAAGACTGCGTTGTGAAGCTCACCATTCA  
TTCTCTAACAGTGGTCTCCTGAGTTGGGACACTTACATAGGATTTATTTCTGATGATAACAAGAGCACAGATGCCAAC  
ATGCATGTGATAGTTTCTGGGAGAAGACTTGATGATTCAGCACTGCTCCCTATAAATGACAAAAGAAGACCCACATATA  
GCATTAGGTATGGATGAAGGTACTTAAATTTAAGCTTAATTAGGTGTAAATCCTTAACCTCTATATTCTCTCTGCT  
GCTTTGAAGTTGGCTCTTTCGGTCTCCAGCCACAGAAGGGATTTTCTTCGCTGACCACAGTTCCCCACGTTTTCCCTTC  
AGTAAATAGCAGATGTGTGTGGTGAAGCTGGTTTTCTGCCATTGCTGTGTGAAAAGGCAGATATTCTGAATGAGGAT  
TGTAAGTTATTTTTGTGTTACACATCTTCTTTAGCTTTTTTCAAAGCAATTGCATTTTAGTTGAATGTGAAAATTTA  
CTCTTGATGATTTTCTCAGATTAATGCTGTATCATGTTAATGGGGTAATGCTTCTTCTGCAAGATCTTGGAAATTTA  
GGGCTTCTGGTCAGTGTTTTACAGCTTTGTCTGAGAAAGATGTAATATGAGTATGTTTTTGGTACATGACTTCAAAA

Fig. 6. 52

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GCCAAGTCTGCTTTGCCTGATTTTTGTGTGAGCAATCCCACCTGTCTGATCTCACCCCTGCTCCCAGGTCAAGATAGA  
GGAGACCTTGTGCCCTAGCAACAAATCACATCCACTTTAGCTCTATGGGGACATTTCAACAACAAGGTTCTTGTGNGG  
CTTACCCTACTTTGTAGGGTATTGGCGGTGTTCCGAGATTGTGTTTTCAAAGTGCTTAGCACTGGCACAGTGTGCAACTT  
GCAGCATAAATTATGAAATACCTTAACAAAAGGTATTTACAAAAGCATGAGAGGATGAATGTGAGGAGGAGCATGTCAAT  
GTTGGGTAAAGAAAATATGGCACTAGAAACATGGGAGAAGNGTGTGTTTTGTGGGGGTAGATGGATAAGAAAGAGAACA  
GNTGGATCAGACACCAATTTACCAAAATGATTCCATAATATTAGTGCACAGATAATGCACAGATAGTGTGCAACAACAGC  
TTTGGGAAAGGCAACTGACTGTCTATAAAGGTGAGAAGACATTTTATAAGATGTGTTTTACTGAAAGTGTGTCTCTTG  
TGAAGAGGTTTTGAGCAATATTTTAAAGAGTCTTTAGGGAACAAGCAATTTTCTTTTTGTGCCCCCTTCTAAGAATA  
AGACATAAATAGGAAGTTCCATCCTTTTATTTGTTCTATTCAAATATTTATAGGGGAAAATCGGCTACTACTTCTTTAT  
AAGACCCACCTTTGAAACTCATTATTTTCCAAGGTGCCTTGTCTTATAACAATATTTTCTTCTATGTTTGTATTATTT  
ATTATTTTATTGAGATGGGGTCTCACTCTGACACCTAGGCTGGAGTGCAGTGGTGCAGTCCAGCTCACTGTAGCCTC  
TACCTCCGGGGCTCAAGTGATCCTCCACCTCAGCTTCTGAGTAGCTGGGATCACAGGCTTGTGCCACCATGCCCGGC  
CAATTTTTTGTGTTTTTGGTGGAGATGGGGTTTTGTCTGATGTCAGGCTGGTCTCGAAGTCTGAACTCTAGCAATC  
AGCCCTCCTTGGCCTCTCAAAGTGCTGGGANTACAGGCGTGAGCCACAGTGCCCTGCCTATAACAATATAACAATATTC  
TGTTTAGGCTATGGAAGACCACATATATTCTTACTTAAGCACTTAGAATGGAAGCCACCTGAAGACAGAGGTTATATCT  
TCACCCCTGTGCCCCACACATAAATAGTGCCCAATTGATGTCTTTTGATTAATTAATGAATTAATTAGTGAATGAAGA  
CAGACCTAGGACTCCTGATAGAAAAAGAATAAAAACTTGCTTCTGTTTGTCTTCTACAGTGAAAAGATTTCCTAAATA  
TCACATATAATACCAGCACACATATCTGTTTGTCTAGTGATTGATTTCATTTATGTCTGTATTTAAATTCAGGGAAA  
AACATAGGTAGTTTTTTCTGTAAATATCTCAACACTGAACCTGAAATGAAACCTTATTAATAATGCGCAAAATTAACATA  
TTATATTTTGTGCTAAGGGGCTTTGGCATTTTGGTAAATTATGTCGCTGGTCTGGAAGACTCAGGCCCTGGGA  
TGACAGGCCTATGTCAATGGGTGACATGGGTGGGAAAGATGGCTGGCTGTCTGTAAAGTGCCTTATGAGTGTGAA  
GCCAAAGGCAGTGCTTGGTACCACCCAGGGAATATCTATCAGAATGAGATATTTTATTGGCTTCACATACCACATA  
ACATGTCTGATACAGTCAGCCAAAACAAGATTATTTATCAATGCCTCTGCCAGCTACCCAAGATGGTTAAGAGAACCRA  
AAGCCAAATGCAGTGATCAAAAAGACTGCTGAAGAAGTAAAGGCAAAAGGATGAAGAAAACCAGCCAGGAACCCATG  
TTTTGCTTCTATCTCATTCCCTGGGAATCAGCAGTGATGAGCATCTATCTCTATATAATCCGTCTTCTCTGCAGGCAG  
AAGGGCTACTCCCTTACTGCACCTGAGTCTCACATTCTCAACCACATCAGTCACTAGGAAGCGGTCAAGGGAACACCA  
CAGTATAGCAGAGTGGTCAAATCTGCAGGCTCTGTTGCCAGACTGCCCTGGGTTCCCTTCTCTTCTATCACTTATTAC  
CTTGATAGTTACTAAACCTCAGTGCCACAGGGTTTTGATCTATAAAATAGAGAAAGTAATAAAATGTTATCTCATAG  
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GCTTCAGTCTTTTCAAATGTTTTTGTCTCAACTTTTACTGAGAGGTAGCAGAAGCCAAAAGATAGAAATCTAGTAAAAAT  
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CAGGATAAGATAATTTTTTAATGAGTTGAAATTTGTAGCTAATAGAAAGTTGAATATACAGATAAATGAAGAAAG  
GCATGCGATGGTTTATCATAACAGATGTTAAAAGAGTAAGAGTGATTTTTTTTTTACAAAGACAACCTCAGAAAAAAG  
CCAGAGAGTTTTAAAGTGAATTCAGTGCACAGCTTGGTTCTGCATTATAAATAAATGAAGCTCAAAAAATTATTTAG  
TAGCAGAGGCTTATGAGAAGAGCTTGGTTCTGTGGAGCAGCAACATGATAAAGTTAGATTTTTGGGGCCTCACCTAAC  
TGTGGGACAGCTCTCGGGCCTCTGATTTCAATTATTCCTGCTTTTTTTTTTTTGGTATTGCTGCAACACATCTGTCTC  
CTGGTACCCTCTCCTTGCCTTTCTGTCTGCTTTCCACTGGGATTGAAATGCTTTTCTTCTCCACCTCTGTTTCTAG  
TTGCAGTATTTTTCTTTATCAAGCTCATTTTTTCCCTAACCTGTAACCAATCACCAGTGAATTTATGACATTGGAGCT  
AGTAGCTGTGTTGATGGACGTGAGTGTCCAGTTCATAGCTGCATGCCAGATGAATAGCAGTATAGCTACAGAGGC  
CCTGCCAGCACAGCCAGACATGATGCACTAACATGCCAGTTTCTTGTCTTCTGGTCTTCCAAGCCATGGGGCCCTGG  
TGATATATACCGTTAATCAAAACAAGTGTGATGAAAGCTAAATGAAGCAAATTTAGTGTGTGGCATCAATATCAACATCA  
TTTATTTTACTCACTCATTTTGGTTCACTTGAATATTCACTACTATTTTCCAATAGTAAATGATGAGAAAATAACTTTT  
TAAAGTGGGGGAAAAGAAGGAAAAGTAAATTTCTCAAAGAAAATAAATTAGAAGAGGTTGAAGCCATGTCAAAT  
GGCTTCAATTCAGACATTTTTTAATCATAGGTAGATATTGGTGTAGCCAGAGAAAACACAGTATTCTAAAAAATTATCA  
TTCAGATGTGAATATGCTGATAGTAATATTACTATCTGGATTCTCCAGATTCTATAAATTATATAAAAAATAACAAGTGC  
AGCCCAAGGCAGTCTATTTAAATGCGTGAGGAGTAAGGCAAATGGTATTGCGAGAAAAGCATTGACAACCTTGGTTAGGT  
AAAATGCTACATTTTCTCTTGATAATAAAATGTTCAAGGTAATTTTGGGGCTGTTCAATAAGCAGAGCCAGTGAGAA  
CATAAATCACTCTGTTTTGTGCTGAGAACACTGTTAATATTAATGGGAATGTAATGCTGAAGTTCTGGGGATTGA  
TAAAGGGCAGCTCTAGATNTGTGAGACTGACACGCGGCTCTGGGGGTTCTGACCAGTTAATTATGGACCCCTGCAG  
TTTTTTTCACTCTCTGGGAGCATTCCCAGGACCCCTCTGAGGCATTTCTTACTAAATGTGAGAGAGAACTTATTTTC  
AAATTCCTCTGAATTGAGAACCAGACTAGATGTAGGATAAAGTGAAGTACAGTTGATCTTTGANCAGCACAAGTCTGG  
AATGTGTGGGTCTGCTTATACTTGGATTTTCTTCTGGCTCTGCTGCCCTGAGACAGTAAGACCAACCCCTTCTCTTCT  
TCTTCTCTGAGCCTACTCAATGCAAGATGATGAGGATGAAGACCTTTTGAATGATATGTTTCACTTAAATATATAG  
TAAATATATTTTCTTTTCTTATGATTTTCTTAAATACATTTTCTTCTCTAGCTTACTTTATTTGTAAGAATAACAGTA  
TATAATATATATATAATATACAAAATACGTGTTAATTGGCTGTTTATAGTATTGCTCAACAGTAGCCTATTAGTAGTTA  
AGTTTTTTGGGAGTCAAAAGTTATACTCAAATTTTGTACTACAGTGGGTTAATGCCCCAACCCCACTTGTTCAG  
GGTCAGCTGTAGTAGATTAAAAGTTTTTCATGTCTGGAAGATTCTCTATTCTGGACTGGTTCAAGGAACCTTAGAGG

Fig. 6:58



TCAACTCGAATCCCAAGGAGTGAAGTACTAATGGTTTGATATCCAGGTGTACATGCGCTCTGCCAGGAGACTGTAGG  
GAAAGTAGATTATCATCATCCAACCTTGTCAGTTGTGCGAGCCAGATATTTCTTGCTGACAACTGTGAATATTTACCTATGA  
ATACTAGAGTACTAGTCTAATGTGCAACAAGATACATTTGCAAAGTGCAGGGAAAGTATAATAGTCAGGTGACCAAAGG  
TCACAGTGACCTTCCTTAGGTTTGTGCTCCTGACTATTACACCTTGACTTGTTTTACTTTTTACAGGATTTTTACAGT  
CGAGTAGTGGCACAATAATTTCTTGATCTTGTGTGTTTCTGTTACGGTAAAAATAAAACAAATATAAACAGTAACAAAG  
AAACAGCTTCCAGGAACTTATAGTTATTTCTCCTATGTTACATGTCGATTTCCATAATTTCTCATCTGTATTAGTTTG  
CTGTGGGAATGGCAATCATATTATATGACCCCTACCACAGCAGCTGCCCTCTCACATGATTTATTGCAAATTTGGTTATA  
TTGGAGAGTGGATTCTGCCAAATGGGTAGCCTAATTAGTAGTCAAAATGTTGTTTCTCTAGTGATTTATTATCAAGCG  
TATTAATTTCAAGTGTCCAACAGAATGAAATAAATGTCTTGGACTATTTTTCAATGACATATAAAATGAAACTAAAC  
CAGAGACCAATTACATTGAAAAAATTTATTTGAGCCAGAAAAACGTCNAGTACTGGGCAACATCCCAGACTAAAAAT  
GGTTCAGAATGCCCCAACCTCCAATTGTGGTGACTTAGATTTATAACCAGAAAAACAGGAAATAACATATAGAGATTACC  
TTGTTGGTGCAATTCATGTTTGCCTTATGTGGGCATAATTTGGCAGCTTTTCCAGCTGGGAATTGACTGAGGATTTGGC  
TGCTATGATTGGCGGAGAACAGTGTGCTTGGTAACAAGGGTATACCTCTAGATTACAGCTTGCTATGTATGGAGACTGC  
TTTGAGCCAAACCTTTACTACAAGTAAAGAACTGTGCTGTGCGCAAACCTTAACCTTTAACACATCTCAGCATTGGTCTGA  
AAATCAGTTCACAGTATTTGATAGTGTGCTTGGCATTCTGTGTGCGCAAACCTTAACCTTTAACACATCTCAGCATTGGTCTGA  
TTTGCACTATTTCTGTATCTGCTACTTTTGGAAATAAAAGTAGTCAGTATAAATTAATAATGTTTCTTAAATAGTCAAAT  
GAGAGTGATGATTCAAATATACCTCCTTTCCCCATTTTCTTTCTAAATATTTCACCTCTAAGGTAATTATAAGTAAAGT  
TTCAAAGGTTTGATTGGAACATTTTTCATATTTCTGTCACTTAGTTCATAGATGTTTCATATTTCTACTGTATTATCTTA  
TCAGTTATTAAGATTCTTGGGAGAGTATATATCTTTTTATAAAGCTTTCCAGAATAGTTACCATGATGTTCAATCTTAT  
AAGTAAGCATTCATGCAAGTAGCTGTCTTAAATATGATCCCGTGAATGGTGGTATAAAAAACATAGTGGATTAGACACTAT  
GTGCTCTAGGAGATGGAAATGAAGCACTGGCCCTGAGTGAATTTCTCAGCAAAATGTTATTGGCCGCTGGTCAATATAT  
AGTGTGTATGCATATAAAGTATTTGGCACATACTTATTAATATTAATATGACACATATAAAGTAACTATTCTGTG  
ATATATGTTATGAGATTATCTCTCAACATCCATTCCAATTTCTTACTAGTGTACCCCTGGCCCTGTGAAGCTGGAAACCA  
TCTCTTAGTCTTCCCTGGAGATAAGGTACTGAATCCATGAAAGTGCTAGTCTGTTGGGGGAATTTCTGCTCAGGCAAC  
CTGTGGAAGCATCCTTTAGTTGACATGAGTTCAGAGGTACTGATTTATGAGATTTAGTAGGTGGAAGGAAAGCAGAGAC  
TAACTTCTGCTATTTTCATCTACCATGCAGAGGGTTATGGGGATATCTTGTGCTTTGCTTTTCCAGCTGGCACAAGTCC  
AGGGCCCATTTGCTCAGCAGTGTGGGTGTTAAGAGGCAGGATGTAAGGTATCACCTGTGCTGGTGAGGAACACAGTGAAG  
AGTGTATGATTTGGGAGCTGAGAGCAGTAGCAGTGGGGTCAAGCTTCTGATTTGGGTGGTCCCAGGATCAAAGTGGT  
TAGTGATCCGCTGGCTTCTTGTGCTGTTGCTTTCTTAACTGTGGCAAAGCAGCTGTGGTATGGAATGGCAGTGAAC  
CAAGGTGGCAGGTAGCTTCTGTATCCAGAAAGAGGCAGCAGTTCCTCCAGCAGCCCATTTCTGTGGTGTGCTTGGGAA  
CTATTTCTGAAGGCTCAACTTAGATGTATTACAGCCCTCCCGAGTATTCTCTAAGCCATTTAATTATATGCTTAAATG  
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TCCATACATATGTTTCAATGTCAAGTCATTGAGCATTATGTTATTTTCATGGANATTTGTGGGAGTACCACTAGAAATAA  
TCAAAATATAATTATAATTTGTGCTTTTTTCAAATCCATCAGAAATATTTACAGTACTCCATATTTTCCCTCTAATC  
AATGAGTTACACTGGTGATATCCCGAGGCCATTAATTTCTTATAAAATATCCCTTGAAGTGTACTTTGAAGCCCAA  
CAAAATGAGTTGTTTGGAGCTATAAAGCAAGAGCAGGAGCAAAATGCAAGTATCCACAGGAAATGTTTGGCCTCAGG  
GTCCTGTCAATCAAACCTAGAGATTGAAATACCAATATTCTAGCTAATGTCTAAGGCTGCTTATTTCTGTGGCTGAAGG  
CACAGGCCAATTAGAGGCCAAGCAGTGGGTCTATCACCAGGTAAGCCATTTAGTTTACTCTCTTTGTGGCCTCA  
GCTTTGCTCTTGGTCTTACCTCATCATCTACCTGCTTTTGAGCAGAGAGAAAGTGTAGAAAAGTGGCAGAAAATACT  
TTCTCAAAATCTTTAGTAATGATGGGTGAGGAGCATCATCTTCTAGAAGGACTGTGCATCCTAGTCACTCTCCAGAGA  
GAAGAGGAAATGCAAACTGTCCAGTAAGTGTGAGCAGTGTAGCTAAGCTGAATAGACAGGCAAAAGGAGGCTCACTACTG  
TGCCTTGGGAGGAAATTTGATTATCAGGAGAAATGGTATGTTTGGTTAAGGTGGAGGTGTGATNGAAACATTTTGAG  
TATATAGGAGAATTTAGTTCACAATAGGAGTTTAAAAAGATAAAAAAGGCCAAGTACTGTGGCTCATACCTGTAATCCC  
AGCACTTTGGAAGGCCAAAGCGGAGGGTTGACTTGAGGCCAGGAGTTTGAACAACTGACCAACACAGAGAGGCCAC  
ATGCTACAGAAAAAAGCCGGGTGTGGTGGTGGCAGCGCTGTAGTCTAGCTACTCAGGAGGCTGAGGCTGG  
GAGGATCGCTTGACCCCAAGAGTTCAAGGCTGTAGTGAGCTGTGATCATGCCACTGCACCTCTAGCCTGGGTGATGGAAT  
GAGACCTGTCTCTAAAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATTAGGTGGAAGA  
AAGATGACCCAGCAAAGTGAGAGACTATTCAATGCTTCATAATTATATTCAGCTATAATAATACTGATTCTCTTCCAAA  
TAGTGAATTAATAAGACATACAGTGTATTATGTTAAAAAGTCTGAAAGTAGGCAGTTTGGGGCTGGCATGGCAA  
TTCTGCAAGGTCAATGACGACCAATTTCTCTTGTGTTGTTATCCATTTTCTAAGCACATGGCTCACATTCTCAAGA  
TCAACTCATGATCCAAGATAGCTGCTAAAGAACTAGATATCATCTCTGATTTTCCAGCCAGCAAAAGGGAAGTACT  
CTCCTTCCCCAGAGGCCCATGCAATATTTCTCTTACATCTCTTTGGCCAGAATTTTGTCACTGGCCTCACTAAGCTG  
CAAGGGAGCCTGTAAATTTAGGCTATTTGGCCAAGCAGAAATATACCTAGCAAAAAATGGGATTCTGTTATGAAAGGA  
GAAGAAGATGAGTGGATATTTAGTGGGCAACTCTAATCTCTGCCATAAAGTAGGTGATCTCTGTCTAAGACTGAGCTA  
GACGGGATTATCTATGCTGTGTTGACTGTGGCCTTTTGGCTCTGTGCTGAGGCTTTCTTTTCTAGGGCCACAAACG  
GAGTTTCTCACATTTACTTCTGATGATCCAGGAACTAAACTGGTTTTTCAGAAATACTGCTGTTGTTTAAATCCACTGAAACAA  
ATGCTCAGCTCTGTGAGATCAGCAACGGCACCTGAGACCTTTTTATCTGCTGTTGTTGTTTAAATCCACTGAAACAA  
TAGCAGGTGTAAGCTGGAATTTCTTTGGCACACAGCCTCTGAACCTTGGCTCATGTTCTCAGATAAATGCTTATAGCAGC  
TGAAGCTCTTGAAAAAAATTTAAGAGGAGGAAACAGAGTAGGGATCTTTTGGGGTCCAGCTCTAGGTGTTTTTAGAGC  
CACTCAAATCGAATCAAGACCTTTGATTACCATAAAAAATCTAAATAAGATGTTTTGTTTGGCCCAACAGTTTTTA

Fig. 6.59

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GAAAAAGTGAGCCAAATCTGAAAATTAGTTTATTTTCATATATATTGAATAGTTAGGCCATTTGGCCACACCTGTCCTG  
CATCCTGCGTGTGACAACATCTGGGACTGAGCAATAGTTGTATCTTTAGGTGGGGCTGCATTTGCTGGCCCCCAA  
CCATCGACGCATTTCTGATATCTTGTGTTTGGCCTACTTTTCACTCATTGAATGTAACTGCTGAATACCTGTAAGCAT  
CTAGGCTGTGACCCCTTTCTGTGGATGGCTCAGGAGGTAAACAGTGCATGAGAAGTTTCTGGCCTACCTCAGTTGCTATC  
AGGGTGGGCAGAGTATGTGGAGAACTCCTAGCCTGGAGAGTGAAGAGGATGTAGGTAAAGTTGAGGTCTAGAGA  
AAAGATCTTGACAAGGAAAGCCTGAAGGCTTGTCCAGTATGAGGTTGCCAGGAGTCATCTGTGGGAAGACACGGAAGTG  
CACCTAGGAGCAGCTGGTGTCTCAAGACTGACTGATAGGCTCGAACCTGAGCCATGGTTTACAAAGCTGACACCAAGGAT  
GTAACATATGGGTTGTAGCCAAGTTGTTCCACACAGGTGGAGTGAACCTCTGTGGTATTTTGAAGTGATAATTGGCTAG  
GGTAATATTTTCAGGGTGTCTGGTTCTAACAGATGGTGTCTATTGAAATCCTTCCCTATAATCTCCATGAATGACTCTGT  
AACCTACTTAGGAGGCTTATTCAAGTGGTTCAAAACCTAGGCTGTATTCCAACTGGTTGGCAATCTGTTTCATTGATGT  
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CTCAAAACATGTACTGATACATGCATGTATATTTTGGCCACCTTAAAAATTCACTTGTGAATTACTTTAATGTTAATG  
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TGAAATGAAATCTTTAATTCTGCCTTAGATAGTAAATGCCAACAGTTTAAAGTGGCATGATTGATCTTTAAATTTGC  
CCTACTGATGAATGGTGCAATAGGAAAAGGAAAATAAAAAGTATTTGCTACCTTGAGAAATACACTCAGTCTCTATT  
TGATTTTCTTAGATGTGGGGTCTGTAATTGTAAGATCTGTTTTTATTCATCGTAAGTGGGAAAGCCTCAACATTTTA  
ATTAACAATAGTAATATAAATTACATTAGTTTTTATTTTCTAGTTAGTAAATTTTCTTTTCATGTATTTAATACGAAATAT  
CCATGCAAGAGTTCTTTCAGCTTAAGTCAGATGTGTTTCAGTGGCTGGGGCAGTGCATTAATATAGTCTGCATGTGAGA  
AAAACAGCAATTGGCTTTTCACTAGTATTTGTCTATGCTCTATCTAATGCATTCAACATTTTCTATTGTCTATGCT  
CCACTGTATATCACATTTTACCTATTTGATTCCAAATTTACTTTGTGGTATTAGGTTTTAATTTAGTAATTTACATACA  
GCTTGGAAAAGTGATTCTTGAAGATATTGCTTTGTATCTACATGATAATTGACACTATTTGTATTAATATAAAGCA  
TTAACCCTCTTTTCTAGTGGTCCCCAATTTCACTTCTAGCAAAATAAATTACAGATTCTGTTTTCAAGAAAATTTG  
TATATGGGATTTCTTTCCATCTTATCTAATGTTAGGATACTGAAGTTAAAGTATGCATTTTCTGTTTTATATATTT  
TGTCTTTAAAAATATATGTTTCAGTTATAAAGTAAATATCAATTCTTAAATAATTTTGTAAATATACAGGCAAGCCGCAA  
AAAAAGAACAAATATTCTAGAGTTCCATGAAAGTCATCATATTAAAAATGAAATTTAAGCAGTTGGAGCTTCACATTAT  
TTCATAAGAATTTTCAACTCTAATGTATATATAATGATTCTACCAAGTGTGTCTAGTTTCATTAGCTGTTTTCAATAT  
TTTTTCTACTAAGACTAATTAATCTGTGTGGAATACTTTTATATATAGACCATTTCCATACCTTTGAGTTTTTTAAA  
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AATGGAAGAAAGAGGAATCATAGAATCATTGCTGAGTGTGCTCCCGAGTTCTGTTTGTCTAACTGAAAGGAATT  
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TGGAGGTTTTGTGTAATCTGAGTTTTCGCTTTGCAATTTGGCACCATGATAGCTTTTGTATTTTCTTCTGTTCT  
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GGGCTGAAGCTATCGGGATAGCAGCTGGCTTCACTAGTGTGCTTTTGTGCTGCTAGCTTGTGCTTTCTCATTGATTTTGG  
TGTCTGGGCATGCTCTTACTTTCTAAATCATGTCTGCAATTTAAATATTTTAGAATATTTTATCCAGCATTTTGTG  
TTTTTCCCCAAACTAGTATTTTCAATATTTCTGTGAGAGAACAGGGAGTCTTTCTAGTATATTGCTGGAAATAAAT  
ATGCAACCTATTCTCTACACAACAGTCAGGGTGATCTTTTAAAGTATACTTTAGATCATGTCAGTCCCCTACTTAAGAC  
CTTCCACAGCTTTTCAATGCTCTTAGATTAAGCAAAACCTTTATGTTTTCTACAAATGTCTGCAATGCTGCTCC  
TAAGAATCTTCTTCTTACCCTCTTCTCTGCTCTTAACTTCCAGCCACACTGGCCCTCTCTGTTTTTGAACCTA  
ATGGAGCTCATTCCTGCTTGGGGCTTTCAGCTTGACATTTCTTCTGCCCATGTCTGGACACACTGGCTCTTATGCAT  
CATTAGTTACAGCTTAAGTGTCTCTCAGAAAGACCTACCCTGTCCACCCTACTGAAAATAGCAAATTTGCTATCA  
CCCAATCATTTCAACCCATCACCTGTTTAAATTTGCTGCTTAAATTTGTTTTGTTGCTATTTGTTTCATGTTTACA  
ATTCAGAATATAAGCTCTGTAGGAGCAGGAACTCTTCTCTCTAGTTTCATCACTTCAAGCCCATTAAGAACAATGC  
ATTGTTTGTGGAATGAATTAATGATTAAATAATTAGCTATATAGTGTCAATTTCCAAAGTTGGCAGAAATATCATCATT  
GGAATTTTGTCTTAAAGGGAACTGGGTTATAGAAATGTGGGAAGAATACTTAATAGCATTTGAAAAACAATGCTTTAC  
TAAGGAATCAAAATCATGAAATGTAGAGCAAATAGGAGTGTATTCCCTTTTATTCCAGACTCTATTTTATAGATATA  
AAAACCGAGACTCTGGGTTGCTGTGAGTGGCTCAGACCCCACAATTAGTGGCAGAGCTGAGGCCAGGGGATGCACATTC  
TGATTCCTGCATCATGGCTGTTGCTTAATATCTCACCATGAGTCATGGCTACTGCCCAGTAGATTGGGCACAACCATGA  
ATATTAGACTGGCAATTTGCTAGAGATTTTGCAAAACCATGGGAATGGATTGAACAAATTTTCTGTCTATTTTGTAA  
GAGGCAGTAATAATGGTAATTTGAGTATTAGAGAACAGCATCTGAATACTTTTCTAAAATTTCTACAAGGTGAACATA  
GAAAATTTGTAGCTTTCTTTCTGCTTATTGCTTTCTGAATGTCAACAGATTGCTTTCTCAGCTTATGTTAGAATGTCA  
CCAGCAGGACCCACATCTGACATGCTCTGGACTGTGAGGCCACTCAGCACTAGGAGAACTTTCCAGTTGAATTTCTCT  
TAAGAAGGTCAAGTAAGATAAAGCAAAACCTTATTTCATCATTACCATAATCCTTGTGAAAGTGGGAAAAGTTTCAT  
CCTGGCAAATTCAAAATCGATTACAACTCATGCATGTTGCATATGATTTTTTAAAGATTTTACAAACCCAAATAAAA  
TAAGTAGAAGAAAACAGTAGATAAATTTAAAGTCTTAACTGAATGAGTAGCTTTGAATTTTACTCAACGGATATAA

Fig. 6



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GCTTTGGTTTTTTTTTATAAAAAGAAAACAGGTTTGTAAAGAGACTATGAACATATTTTAGAAATGCTTCAGTGATTTT  
ATCATTAAATAGAAATTTGGATTATCTGGAAAACAGTTTGATAATATGTTTCAGGCATTTGAACATATTTACTCTCC  
TGGCCAGTAATTCAGTTTGTAGAAATTTATCCTATTTTAGGAATCTAGCCTAGAGAAAAATCTGAAATTCAGTCATCT  
TGGCATAAGGATGGTTGCAGAAATACCTATTAATAAAAAAGTTGAATAGTACCTAATATTCAGTAGAGGTATAAATA  
ATTTGTGGCAGGTTTCAATTTGCTATAGTTTATGCAACTATTTAACAATAAGTAAGATTATTTAAATGATGAAGGAA  
AACTCTTTCAATATAATGTTAATTTTTTTTTTTTTTTTGGAGAGGGAAGAGCTCTTTTATTTAGTAATTCCTGACACAT  
TTTAGATGCTCATCAATAGTTAATTTCTTTTCATTGCTTCTTACTTTTCTCTCCCTTTATTTATTTATTTATTTATTT  
TATTATTACTTTACGTTCTAGGGTACATGTGCACAACATGCAGGTTTGTACATATGTATACATGTGCCATGTTGGT  
GTGCTGCACCCATTAACTCGTCATTACATTAGGTATATCTCTAATGTTTTCCCTCTCCCCCTTCCCCACCCACGA  
CAGGCCCCAGTGTGTGATGTTCCCTTCTGTGTCCAAGTGTCTCATTGTTCAATCCCACCTATGAGTGAGAATATG  
TGGTGTGTTGTTTTGTTTCTTGCATAGTTTGTCTGAGAATGATGGTTTCCAGCTTCATCCATGTCCCTAGAAAGGACA  
TGAATCACCCTTTTTTATAATATAATGTTAATTTTTTAGAGATAAGACCTAAACTATATACGTGTATGTAATAC  
GTATATAGTATAATCTCAACTACATAAAAAAGACAAAAAATTGCAAAAAAGTCAAAGTATTAATAAATA  
TTATCTCTAGGATTTGAATAATTTATGCTATTTCTCTTTTACTCTTCGTATTTTCCACAATATGTCTA  
TTATTTTAATAATCAGAAAATCAATATAATTTATTTTAAATCTTGGCAGATGAACATAGTGAATGAACATGTCAAAAT  
GCGGTTGGAATTTTGTGAACTTCTTTACAGAAGACTATATAGATGAGTGTCTTCTAAAAATCTTTGGATAGATAAT  
AAGATCAATTAATAATTGAGTAAATTCATCTGTTTGGCGTGTGTGTTTAACTATTTATCTCTGTGTGCTACTTAGCT  
CCTGTATTGCTTTCTGAATAAGACTGAGGTAGTTGGTGAAATTTGAACAATCTTGCATAAAGATTTTATTGCATAGG  
TTATAGGATAAAAATGCAAGAGAAATGTTTGTGGAAGAGTACTTAGTAGAGAAATCAGAAAGGCTTTATGGGTCCTTCA  
TTTTGGTCACTGTTATACCTTTGTCTAATAGACCATTGATATACTTTCTACTCTATAAGAGATTGATACCTAGTTAAG  
GAAGGTCATGATATATTCATTTGTTACAGGAAATTTAAGGTGCCAGAAAAAATAATCAAGAACCAAACTAACGAA  
TAGAGAGCTCTATTGTTATTGACTGAAGTATAAATCTAGATCCCTTAGCAAAGCGAACTCACAGTCCATACAAAACCC  
CTTGCTATGTCCGTTGGAGAAGGATTGGCAGCAAGTAGCAAGTATGTGGAGGATCATTGTTTCATGAAGCAGGGGTAGA  
TAGGAGCCTTTTTCATATACTTCTAACCTTTTTTATTGTCTAACCTATTGTTATGTTGTCTCATTAGAAGAGGCAATAT  
AATGTAGTGGCCAAGAGGTATGACTTAAGAATCACTGGACTCAAAATTTGCCAGTTTATAACTCTGTAATCTGGACAA  
ACTACTCCCAATTTTCTAATTTGGAAAATGTGGATGATAATGGTCCAAAAAAGATGAGTCATCTTAAGTAT  
TTGAACCAGAGAGAATTTAATTGGCTATGCAGCTGAGGGAAGAGCTGAAAAGCCAAATGGGGTCATTAAACAACCCGAA  
TATTAGCAATAGCAGGAAGCATCCACTAATTTCTAATTTGAAGGGACAATATGTTGGAGACAGTGTACTGGGTCCACAG  
ACTGAGGTCCTGGAATTTATGGTGAATCTGGAGAGGATGGGAGAAAGCTTTTTGATGGTAGAGATTCTGCTCAAGGC  
ACNGAGAGAGGAGAGAAATATCTTGGTGTCCCATCTTTCCAGCTCTTGTAGCCAAACACAGCCAGAAGTCAA  
CTGACAAGGGACTCTGCATTGCCTCTCTTAAATACAGAGCAGAGAAGGAGAAAGGTGAAGAATGGATGTGTGACAGGCA  
ACAATTCCTACCTCAGAGGTATTATGCCTAAGCATTTAGAACAGTGCCTGGAAGATATGTGCTTAATAGACACTACCA  
TTATCATCGTCATCATCATCATCATTGTTTATCATCATTGGTGCCATTGTCAGAGTAGCAACATCTCTTTGTGAATGTAC  
TTTACAGGTTGGATGCTATGAGATTGTTTCTAATTACAGCCCTTTTCCGGGCCCTGCTGTGGTCAGGTTGCTAGTCATT  
TCAGCATTTTTAGTGTGTTGGTGAGGCGGGGTGTTCCACCTTCCATTCTCATCTACCCTGCGTTGATTACATTTAGAGT  
CAGCAGACCTAGTTTATTGATGACAAGAACTGAGCCACGCAATGTTCTAAGAATCCAGGCAGTTTGGAGCATGATA  
AAAATTCACAACCTGTGGGAAATGACCTTGGAAAGTTAACTTTAAATTAATGATTTTAAATTAGGATTTCTTTACA  
TATCCTAGTCCCTTTAGAGTTGAGCTTAGCTTTGTCTGCAAACTGAAAGAATACATATTTAATTTTTTGGTATTTT  
CTGTAGCATGGCATTAAATTAATAAATTTAAGGAATAGAAGCTTGACAAGATGCCTTAATAGGCCACCAGGAATAA  
TCACATAGTTGCCTATTTGAAGCATAGACATAAAATTTAAATTTCCATCCAGATAAGTCACGAGGCTTTGCCAAAGT  
GCCCTCTTAAATGCTCCCTTTTGGAGAATGCATATTTATTGTAGCATTTTGTGAGCCCTTGGGAATTTCTCTTG  
AGAGACTTTTACCAGTATGAAAAATAGCAGCTTTTCTAAGTTTGGAAATATTGTGAGTCTTTTCTCTGTTTCTG  
CCGATTATCCTATTCTCAGAAATAACATTTATTGATCTCAAGGAGTTAAACATTGTCTGTTTTCTCTGTTCTGTATT  
CTTCACCTTTAAGACCAGATCCCACTAAGTAATAATAAAGATAATAATGGCTAAGAGTTTTTGTAGCTTCTCTCCAG  
TCAGTTATTGTTCCAGCACTTTGGTTTCTTCTCTCATTGATGTGATATAGGAATTTGTAACAACCTATGAGACAG  
GTGCTTCACTTTAAAGACTAAGATACTGACGCAGAGTTATAAACCTCCCCACGGTCACAAAATCATGCTGCTGGACT  
GAGCTCGCACCTTCCACTACTATTAATACATGGTAATGTTGACATCTTATTGTAAATGTTAAACAATAAAGCGTAAAGG  
GAAAGAAGTAAATGCAAAAAATGGTCAAAGCAGGAGATGATTTTAAAGAGCATCTGGTTCACTCTCCCTTTTACAGC  
TGAGAAAACCAATCTCTAGAAAAAGAAATGAGCCTTTTGATTATAAAGCAGACTGCCTAACAGTATCAAGTCATCTC  
ACTTATTCTCTCTGCTCTCCATGATCACAGAGTTCTGACCATGTCTGTGTCATCTCAAGCAGAGATTGAAAATGAC  
ATTGCTCCTTTACTTTGTTTCCAAGGAAGCAACATTTTATAGTTTGAAGTGTCTCTGCTTTGCAAGAGGT  
TTGCAGAAGTTAAGCCTCATGGAGTCTTCTCTCTTAACTTAAGTGAAGTGGATTGCTTATTGCTCTCTTTGCTGTAA  
AATTACTACATTTTCAATCTGGTGCATAGTTCTGAGTTTGTACATCTTATGTGGCTCTACACTCTTTGAGGTTAATT  
TTGGCCTTGGATGGTGCCCTTTTAAAGGCAGGTAATAGCAACACAGTGTTTTGTGCTTGGGAAACGCTCTGTGTATGGG  
CTTCTCTCTTGGTTTAAAGTATTAACAAGGTAGTAAGTATGAAAGGTGCTGTGTTTGGAGTCTTTAAATGGACTTGGC  
ATTTGGCTTGTCTACAATCTTTTCAAGGAATTTAATCTGATATTGAGTTGAGTCACACACCTGGGGAGTGGTGACCA  
TAGCTCTCTCTTCCCTCCAGCTCCACTTCTGGGTTAGCATGAATGACCACTGTAACCTGCTCTCAGGCTCTACACA  
AAGGTGCTTCAGAACTGCTGCTGTGCCACTTCTGTGAAAGGGCATGGTTCACAGTCACCGTGGCATGGATAGAAAATGG  
AGAGCAGCAGGAGGAGCCAGGGATAGAGAGAGGAGGCTGGATGCTGCTGGGCTCTGTGCCATGCTTGGGTAGGC

Fig. 6.61

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CACTTGACTACTTTTAAACCAAGTTGACTCTCCTGTAATGCAATAGGGGTTTAAATGATCTCTGTGGCTCTAGAGTTTGT  
AGTTTTCTACTGTTCTTTGAAGCATGAACATTAAATCAACAGAAGAAAAAACCAACATTTTTTCATTGAGAACAGTT  
TCAAGATATTCTCTGACTCACTGGATGGCAAATCATAGTGAAAGGGAAGTCTGACTCGACTTCCATTTTGCATTACTT  
TTGGCCAGCATGGCTCTTTATGGTGACTTGTGTATAATAAACAGCTNTCTAGAGAATACTCTTACATTTACTTACT  
GAGAGATAACAGAAGTCCGAATAAAAACTCATAGAAATGGAAGACTNGGAAATTAATTTTTTCTTTTCTATTACAT  
ACAGAGGAACAAAGGCTGATATTTGTGTTTATGCCCCCTTCTGAGGACAATGTCCTTGAAATCCATATTATTATT  
TGTCTTTATATGTAATTTGATTGTTTAACTCTTCTCTGAACCTTTGTAGCTTTTTTCTTATATCTCTTTTGCTGGAATA  
TTAATAAACTCCACTTAAATAGCCACTTTATCTGTAAATTTTATTTAAGGCTGAACTTGGCCGCAAATGAGAGTAC  
TTGTGTTTTTTTTTTTTTTTTTTTTTAAATGATGTGACTGCTTTGTGAAGGACATAATGAGTCTGTGTTCTCTTATT  
CCTCTTCAACAACCTTTGTCAGGAAAGAAGGCTATTATGATTTCTGAGCTGAAATGAGGCTGAGATAAAATCCCATTACAATCTCTT  
TAGTCATGGATGAAAGNAGAACTATTATACCAGGTAACATCTGAGGCTGAGATAAAATCCCATTACAATCTCTT  
AAATATTTCTGTGTTTAAATGGGATGAGAAGACTATCCACTCCACAAANGTAATCCCTTTCTCTCAGCCTAGTGAA  
ACTTATTGTTTTCTTTCCCTAGATAAAAAAATAGGATGCTGTACAGNTTCTTTTGGCTTGTAAAGACAGA  
TAATTCACAGATTTGCTTTTCTGTAGCTTATGCAATGCTGAAAAGGCGCTGTAAGCAGGATTCCCTGAACATNGCG  
CCGTGGGCCCCGATCCCTGTTTTCTTCTCAGAGAGCTCACTGGCAGCCTCCCTGATGCTTTGTGCCAGTTTTAGG  
CGCTCCAAAGCCACATGCACATTGACATAATCTCCGTTGTTTTGGCTGTTTTATAATCTGGCTTATTGAGGTTTGGTT  
CAAGGCAGAGGCTTTAGGGCAGGATCTTCTGTGAGCTGAAATAAAGGGTCTGGTTTGGAGGAGATTTGACTCTGCC  
AAATAAAGCGGCACATTTCCAACCTGCACATGCTGAGTTGCTCGGAACACATCATGCAGAACACAGACATGCATTAG  
GCAGCTAGTTTGTGGAAGGCAGTGTGCTGAGCACAAGGGGAATAGAAAGACACATGCTGCCGTGAAATAACTGCTTC  
CAGAAAGCACATGTCAGTTGGAAGGATGAGCCAGAAGACACACAGAGAATATTACTCAGCCTAAATGTGACGCTCCCG  
AAAGCGTGCTAGTATGAGACCCACAGAGTTGGAGAAGAGATTTCTTTCCAGTGGGAAAATCCAGGTTAGAAAGACCA  
GACAGGCCATATTACCGGAGGCACCTTTATTTCAAGTTTGGCTTTTTGTGTTTCCGTTTACCTGCAGTCAACCGTGTCT  
CNAATAATTTAGTGGAACTTTAAGAGATACACAATCTGTAAGTTTAAATTTGCATTCTGTTCTGAGTAGTGTGATGA  
AATTTTCATGCCATCTGCTGGGTGTGTAGCATCCCTTTGTCAGCATGTCCATGCTGTCCATGTGACTCGCCTGGAG  
GTCCCTTAGTAGCCGCTCATTAGCAGATCCACCTTCGAGGTATGGAAGTGTGTTTCAAGGAACTCTTAGTTTACT  
TAATAATGGCCCAAAGTGCAGGAGTGGGGATGCTGGCAATTTGAATATCCCTAAAGTGCTTCTTTAAGCTAAAGGTG  
AAAGTTTGAACCTAATAAGGAAAAAACAATAATTATAGCTGAGGTTGCCAAGGTTTATGCTAAAGTAATCTTCTA  
TCCATGAAGATGTGAAGAGGAAAAGAAATTCATGCCAGTTTGTGTTTGCACCTTGATCTGCAAAGGTTATGGCCAC  
AGTGTGCAATAAGTGTCTAGCTAAGATAAAAAAGGCATTGAATTTGTGGGCGGAAGACATAAACAGAAATGTGTTCTGA  
TTGACCGCAATTAGGTTTGGTACTATCAGTGCAGTTTTCAGGCCTACACTGGGGGCTCTGGAACATATGCCCTGCAGATA  
ATGGGGGACTGTCTGATAGAGCCCTGGATACTAATGGTGCTAGGGATTGAGGCCCTCTCTCTATTTTGGGAAGGGGCA  
ACCTCAGCATATAATTTTTGTTCTTTCTTTATTAGGTTCAAACCTTTTACCTTTTAGCTTAAAGGAAGCACTTTAGGGAT  
ATTCAAATTGCCAGCATCCCCACTCCTGCATTTGGGCCATTATTAAGTAAACTAAGAGTTCTTGAACACAAGCACTT  
CCATACCTCGAAGGTGGATCTGCCAAAGAGACGGCTACTAAGGACCTCCGGGCGAGTCACATGGCATGTCTGTGTGA  
TGGAACCTTGGAAGAGGCTGTCTTACCTCCCTGTGCATTCTGGCAGCCCCCTGGCACTGCTCATAGATAGCATGTGA  
CTCAGGCTGGGACTCTGACTCTAGAGCGAATGGGTTAAAGGTCAAGAGGCTGTTAGAATTTATTGTTGGTGTGCTGAGT  
GGCGCCCATTTGGCTTTTCTGAGGCGGCGCAGCAGTGTCTGGCTGTAATTTCTGCTACAGGATAGTGGTCTGAT  
CTTGCTCCTTGGCATCTTGGCGCCTGGGTTTTGCTCATTTTCTGCTCTTAGTGATGAAGACTTCTACTGAGTCTGAA  
CCTGCATGTCTTTCCATGGAGTCTACTTTTTCTCTCCAGCTAGCCAAAGGCGGTTTCTGTTATGGCAAGCAAGAAT  
TCCCACAGCACCTGAGTGTCAACGGCTTTCATCGTTTGTGCTGACCCCTGTGCACTGATCGTCTGCCTTTTTTCTC  
CGGCTACTCACCTTCTTATCTACCTATATACTCCCTGCTTTGAAGGCTGAACTCCAGCATTTTAACTTTTCTGTA  
GTTATTGAAGAGACTTTACTGTTTACTATTCTCTGTACAGTACAACATCTTATAATTGCCATTATACAGATTTTTT  
TACATTGTATGTCTTTTTTTTTTATTATTATTGTTTCTGTTTGCCTACTAGCCCATGAGGAATGTTTTTGGTAGGAAC  
TCTATTTTCTCTTTATAGTTCAGATCCAGCTAAGATTACACTCTGGTTGCGTGACTGAACAAATCTGTTTGCAGGGA  
GAGATGTGGTGTGGAATTTGTAACCTATGGAGAATGAAAAAATAAGATAGCTGTTGTGAGGCATTTACTCTGGTGTAT  
ACTAAGGAGGAATAAAATGGTGTCTGAAATGTGTGAGGGCGGTCTGATAACCGAGTAGTGATTTATTTTCCACTTA  
AAAAAGTCTGGTTTTATTAGGTATTATTTATTACAGTAAATCCATCCCTTTTATTGTAGAGTTCTATAAGTTTTGAC  
AGATGCATATAGTCATGTATACCACAGAATTAATGTATAGAACAGTTTGATCACCTCCCCCTCAAAGCTCTCCCTC  
CTTCTTATAGCCAGTGTCTCCCCACATCTTCAGCTCCTGGAAACAACCTGATCTATGAATTGATATGTGTGTTGTTGT  
GTGTGTGTGTATATATATATATATATATATATATATATATATAGTTTGTGTTTGTGTTTTTGTAGACAAAGTC  
TCTCTCTGTTGCCAGGCTTGAAGTGCAGCAGCAATCTCAGCTTACTACAACCTCTACCCCCGGGTTCAAGTGATTC  
TCCTGCCTCAGCCTCCCAAGTAGCTACGATTATAGGTGCTGCCACCATGCCAGCTAAATTTTTTTTTTTTTTTTGT  
TATTTTTCAGTAGAGACAGGTTTCCCATGTGNGCCAGGCTGGTCTCAAACCTCCTGACCTCAGGTGATCCACCGCCTTG  
GCATCCCAAGTGCTGAGATTACAAGCATAAGCCACCATCCAGCCTATCAATTTTATTTTAAAGCAGTTATCATAGT  
TCTACAACCTTTCCGAATAATGTTTTATACACCAGGAAGATAAAATAATGGATAGTGGATTTTGTCTAGGAATAGAG  
TTGCTGAAATTAGGAAATTAATAACATGTATTTATACTAAAAATTTCCATTACTTATATAAAATTCAGTGTAAATG  
GGCATCCTGTATTTTCTGGAACCCCAACCCACTGGATGGGTATTGCCAGTGTGGGAAGTGTAGAATTGAG  
GGTAAGTGTGAAATTTGCCAGACAGAGAAGGAACCTGCAAGAAGAGANCATGGATCCTATCAACAGAATCATTAGCCAT  
TCAGACACTTTGTGACAACCTAAAAAGAGAGGAGGAGTGTGATGAGATTTTGTATGAAGTAAGAATTCATTGTTGTACAT  
GAACAGCATATGCTAGCCTGCTTTGAAGACTGAAGTTCTTGGCTTTCCAGTTTATAAACAGTTCTATCTGGGCAGCTT

Fig. 6.62

CGAGCCAAATTTGTGTTGTGGAGGAATGGGACTCAGGAAGCACGGGCACCCCTGAAATAGGTGGATGTGGTCTGTGGAAAA  
GGTGAAGCACACACTAGGGTTCTACCTCTTAAAGAAATGAACCACTTTGTGAGCTTATCAAAGTCTTACTTTGCTATTTCT  
CAGGATAGCCATGCCACAAACACATATTTACAGTAAAATCAAGTTGGTGAACATTAATGAAGTACTGACCTCTAGTTTAT  
CTATATATTATTGGAACAAAAGGGCTTACTGAGCAATGCCAAGGAAAGAACTTCCAACTGGGTCTTCTTACTCTACATA  
TAAAGAATAAACTATTTTTAAAGACTTTTGGCAAGTCCACTGTTTATACTACCATAAGTCTTACCTTTCTGTTTTAAAG  
GCAAGCTTGGCAGGACAGTTACTTGGAAATAAGTTGTGAGTGTGGTGGAGTGGTAGCAGTTGTGTCTGGAATTTCTT  
CATTCTTTCTCGCTCTCCAATAACCTACCTGTGAGGCTGTCTCCAACCCAGAGCCCTGACCAAGTGACCATGCTG  
CTAAGTGTCTTGATAATAGTTTAAATATCAGTAAAGGGACACAAGTTTAAATTTATTTGACATATTAGTGCTATCAGTTA  
ATGACTTAAAAATAGCATCTTTGGTTTTCTAGGTGTTGACAAAGATTCTCTAACTTACCAAACTTTAGCCATGCTCCTCT  
GAACCCCTTCTTGACTAGGCCTTAACCTTCTATCACAACATCAGATTCTCAACCAATGATTTCATCCACTCGTGCC  
CCACATTAAAGACTTACACAAACACTAGAATAATTTCTAACAGCTCAAGGCCACATCCCTAGGACTACCCCTACCCCA  
TTAGGATGCCTGCCTGAGGAAGCTCAAGGTTGCCAGGAGAGTTTACTATTTCTTCTAGCCAACACCCCTGGAGCTAGGCC  
CAACCACCTTTCTTAGAGCATTACTAAAAAGGGCTTACAATTGTGAATCCTTGCCCTGTAACTTTGATAAATATAT  
GCATCTCTACTGCTCAAGAGTGTCTTTCTCAAGGACCCAGAGCTTCTTCTTAAAGTAACCATCAGGAGAGAGAG  
GGCCTCTGTCTTTTGGTATCTGGGCAGATAGAATCTTAACTCCCATTAATGTCTAATCACTTTAATGTTGACCAACCC  
TTTGTAAATTTTCACTCTCTGACTTCTAGTCTGAGCTGCTCTCACCCTTCCCTTTCTACTCTCTCATTCCTCTTCTGAA  
ATACACAGTCTCCTCTGTGCAATCAAGGTTGAGTTCAAGTCACTGCACTCCCTTCCCTTATGCAATAGCGTATTAG  
TGGTTCAAATCTGTCTCCCACTTTAACTAGTGTCTGGCTTCTTTATCTCTGACAGTGTGAAGAATTGGAAATTTGC  
AAGGAGCATGGGAAGGAGATGATTGGGGTAGGCATCTTTTATTTTTTAAATCAATTGCATACAGGTGGCTGTCTCTT  
CTGCTCATACTCTTAGAAGCAGGCTTTGGTGTATTTTCTATATATAGGAGACTGGGACTAGAAGGTCAACCTGTTTCTG  
CTGTTTTTCAAGTATCATTAGTTGTGTAATGGAATCCATTAAAAATTTATATGGAATGCACAAAATAAGCAGGTGAAG  
GCAAAATTACTCTTATGGAACAGGGGTAGGAATCTAGAATCGTATTTATTCCTTCTTTTCTTTTATCTTATTTGG  
GGAGTCTTAGCCTCATTAGAACAACCTGGGAGGGTAAAAACAAAGTTTACAAGAAACTAGTTTCTCTCTTCTTATCTTGG  
TCTTTCCATCTCTGGCAGCTGAATGGACTCAGCAGCTCTCGGGGGCAGTGGCTTGAAGTGTCTGGGCTGTGTCTCTGTA  
ATAGGAAATACTACCCACATGGGATAAAGGACCCACAGGACTCTATAACTGGGANTTAGAGGACATCTTGTGTGTA  
ATTCTGGCAGAAGGGCTAGGCATGAAGTCAGAGCAGGAGATGACTCAGAAATCCTGATGCTTAGAGACATCTTCTGTG  
GCTACTGGGATCACTGCGATGAACCTTTGCCTGAGGTCTGTAAATGTGATTTACAATAATTATTTCTATTCCCTTACTCACT  
AGCTTGACAAGATGAACAAGTTAATGTTTATAGCTTCTCAAATGGAAGATGATAATTATTAGGTGGGTCCATTGGGAG  
TCAGGCTGGGGTGAGTTGTTTATCAATCAGAAGGATTTATCAGTAGGGCACTAGTAATCAATAATGATTGAATGTGGGC  
TACCAGAATTTGCCTTTTTCTATGATGTATACAGGACTTGTTTTACATAACCAANGTCTTCAAGAAGATAAAATTAGGAAGAC  
ATCCAGATAACAGAAATGTGGAGAGACCTTGATATCATATTATGATTGAGAAAGAAAAACACATAGACATGACATTG  
GGAAGGAATGACTACATCCAGTTATGGCAGCAAAGCTGTGTGTTGATTGATATTGTGAGAATGAATCAGTGAATTGGGCA  
CTGTGGCTAGGACAGAAAGGGTGACCTGAGAGCCACAGTCTTTTGTGTGTGACAGCCATGAAGAAAGCTTATCTGGA  
CTTGATATTGACCCGTGTGTGATTTCCGTATTTTTCTCTCTTTCTCTCTTTTCTCTCTCTCTCTCTCTCTCTCTCTCT  
TCAACCTCATGTTGAAAAAAACCTGAAGTTTGTCTGTGGAAATGGGTGAGATTTGTGAGTTATGATGAATTGGAATTA  
TTTGCAATCAAATGGAAGATTGTAAACAAAGGTGTGGATGAGTGCAGCTACAGCAATATGCATGTGGTGAATTGAGGAA  
GCTGGTAGAAGTTTGGGGCGTGATTGACAGGTTTAAATGTAGCAGAAATGAGATAGTTGCTTTTGGCATTTTAGATTTT  
TAAATAATACCTTTGNTCAGGCCACACATTAGTTAGTCAGACACAGAGTTGGAACCATTTTGAACCTTTCCGAGCCTCC  
ACGTGGGCTTGTTCATCGTCTTATGTTAGGGTGACAAGGTTCCGAGCTAAAACCAGAGAGAGAAAGCCACAGCAGAAG  
CCTCTTCCAGACCCACTGTGTGACTTTTGAACCTGAGGCATTTTCTGTCCACAGCCATATGCAGTGTGAACAGGCCACAG  
ATGTACATCAAGTGAGTGGGTGAAATACGTTTGGTGGGAAATGATGACAGTTTATGGCATTAGTCTTGAAGCCCCA  
GGTGCATTATTATCATCTTTAATATATTTTAAAGTCTTAGCCTTGGGGATATTTAGCCTGTTTGCANCTGTATTTTAAA  
GATGAGCCCTGGAGTGAATCAGTGAGGGGAGCGAGTCACTGAACTAGGAGGAGAGATGAATGAATCTTTGTAGGAG  
AAGAGTTAAGTGGATCTAGTTATCCCTGAACAAGGAGAATATATCAGGGTAATGAAGAGACCTAGGAGGAAGCTCATCT  
TTCCTTTTAAACCAGCCAGCTGGTTGACCTTCTCTGCACCTGCCTTAGAGCCAACCTTGGCCTGGGCAGCTTGCACCAAGC  
TTTGATATGCCCCCTTGGATGTCAGGATGCTATACCTGGATTATCCTGGCACAGAGCATGAATTATAATTCCTGATCTC  
AGCATATTCTACCTTTGACTTCTNTGTTAGGGATTTTGACTCTTCTGCTTCTGACTTTTTCGATGAATCATGTCTCTCT  
GACAGAGACAAGGCTCTTTTTTAAATGACTCATAGCCATATCTATATATAACCACTGAGTGAATAAATACTCATAG  
CCATAGCTACATATGGCCACTGAATTGAGTGATTAATAATCTGTTGTTATAAAATTTGAGTGAATATATTTTGGTCAAT  
TATGTGTTTGTGGCTATAAAGATAGCTAATAATCTTTTATTAGAATTTGGATACTGTTGATTTTCTTGTAAATTTTAT  
AACTTCCATTTCCCTGTGTACATATGCAGTGTGGAATACTATGCAGACATAAAAAACAATAAACTCATGCTCTTTGTAG  
CAGCATGGATGCAGCTGGAACCCATTATCATAAATGAATTAATGTGAAAAACAGAAAACCAAAATNTCCCATCTTTTAC  
TATTAGTGGTAGCTGCTTATAAGTAACTGGACACACACAGACATAAAGATGGAACAATAGATACTGGGGACTCCGAA  
AACAGAGAGGGGAGGGGGCAGGGCTAAACAACCTTCCNTTGGATACTATGTTCACTATCTGGACAACAGGATCAATAG  
AAGCCCAAAACCTTAGCATCTAGTGTATCCCTGTAACAAACCTGCATATGTAAGTCTGCTGAATCTAAACCTTTAAATTT  
AAATTNAAAAAAATTTCAATGTTTGGACTTAGGCTTAAATTTCTAGAACCTTTTCCACCTCTAAGTTGTCTATTATACA  
AAGTATGTTTAAATAGTAGCTGGAAGAGTTATTTAAATCCACACACTAACAGCAACCAAGTGAATACGGTTTAGGTAAT  
ATTTCTTTTATCCAACAGCTAGAGTGAGATGCACAGAACAAATGAACAAGCACTCAAGACTTGGACTGTGTAGAGAT  
TCAGAGTGAGTTTCAAAGCAAGAAAGGCAGGAACATGAGTAGCATTCTTATAAAATAGCTACTGAAGCAGTAGAGTACTA  
AGGAAAGATGATTGTTGTAGAAACCAATCAGTGAAATAGTCTGGTAGAAAGACTATTCTTAAATTTCTTATACTCCC

Fig. 6.63

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ATAGAATTACTTCTAAACCATACTGCCCTTAGACTAGAGCAANAATATTCCCTGCCAGCCNGCATTTCAGAGGATC  
CTAATTAAACCCTCCTCTTGCCTTCCCCTTCCCCACAGGGTGAGCATTCTGTAAGTCCAAGTAATCATATCCCCTAACC  
CTCCCATGTAAGCCATGGTCTGGGTATCTGGACTCTAGAAATTTCTGCGAGGGTAGTCCAAAACCAAGACACAGGTCTA  
TCCTTCAGGGGGAAGTTTGCNTTCCACACAAAGGGAGGCCAAGGGGAGGGGAATGTGAATGAATGAGAAACCATGGCGT  
CCATACATAAGTTTGCAAATCTCAGTGAAAGAATAAGTTGGCATGAAGAGAAGGAGGGTAGGAGAGAGCCCTGGGGGCC  
AGCTTCTTCTGAATAAGTAAATCTGGTGCAGGGCTTTTCTTAGGTGCGTTCATATGTTACCTCATTAAATCCTGCAG  
AACACTTCAGGGTAGTGTTCTACTGTGCACATTATGGGACAGGGAAATGAGGCTCAGGGGAGTTAAGTAACAGACCCAAAG  
GCAACTGACTTGGTAAGAAGTTGAGCTGAGATTAAACCTTAGGTGATTGAGCTCTAAAGTGCATGATTTTTTCTACCTT  
GTTATGCTGCCTGTGATCAGTATCTTGTCTTTATAATTTCCAGTTCCTTCCAGAACCCTAGCCTGGTCTTGCACCTTG  
GTGACATGCAATAAATATTTGCTGAGTAACAAACAGACAGCATTATTCACCTTTACTAGTTATTTATTTATTTATG  
TATTTATTACCTTTACTATTAATGGTATATACAATAACAGCTGTAGGTGAGGAATTCATGTCAAATATACTGA  
AAGGGACAGTTCCTCTGATCCATCTGTACTGGATGGATGTGTTGATCTCCCTGTGGCCATGTAGCTTTTGGGCTTAT  
CTCTCCATTTGTGAGTTTAGTAAATGTCTGCAATGTTCTGGCTAGCAAGGACTCAAATGTCCCAGAACAACTTTTGC  
TCAAAGAAAATATTAATAAACACCATATATGCTTCTGTAGTCCAAATGTTTTCTTTCTTACTTAAAAATGGCACA  
ACTCTGAGTATTAAGGTGATTCAAGAAGTTGTGAGAATGCCTGTTCTCAGGAGTTGATTGGCAGGGTCCCTCTGTTGG  
TGCGGCCCTGCTGTGATCAGTATCTTGTCTTTTCCATGTGTGTGGGCCACCCATGCTGCTCCTGGANTGGTCAGTGTGCT  
GTCCTGGGGCTTGGTCTTTCCCTCCGCTCACCCCACTTATCATGGATGCCAAGACCATTCTCTGCTGTTGGCAGAAAG  
CCATGGAACATACTTCCCTAATTCCTGCTATAGGCTCATTGGTATTTTCCCATGTGCTCCCATTTGTACACTTAATT  
GTTTGGGCTTATTTGTCTGTCTTCTTCTGCTAACTGTAGGCTCATTGTGCGCACAGGCTTTGTGTCTCTCTGTTTACCA  
TTATATCATCATCTAACAACATGCCTGGTACATAGAATACTTAATGAATTTTACAGAATGACAATGGATGCCATC  
ATAATTGAGTCATTAACCTACTTTTTCAAAAAGTTCTAGCATTAAGGTATCAGATCAAAGTTTCCCTTTCACAAAAATCT  
TACATTTTCCCTCTATACTGTAATTGTATCTACCTGCTTGGAGACTCACCAGAGTGTAGTCACTGTGTACCCTCCCAGA  
GTGACTTTTATTTATCTCATTTAGAATAATTTGTTACTGTGATTCTCTTAAGCAAATGGTTTTGCCACGCAGAGCTGTT  
TGCTCACTGACACAGGCTTAACCTGGTTAAGAAGTACAGGTTGTTTTCTCACCATTAAATGGCTATTATGTTATTTACC  
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CTGCTAATAAAGACATACCTGAGACTGGGTAAATGTATAAGGAAGAGGTTTAATTGACTCACAGTTCTGAAGGTCTGA  
GGAGGACTCAGGAACCTACAATCATGGTGAAGGGAAGCAAACATGTCTTCTTTACATGGTGGCAGCAAGGAGAAG  
TGCTGAGCGAAGCAGGGGAAGTGCCCTTTGTAAACCATCAGATCTCATGAGAACTCACTCACCATTATAAGAAGTGCA  
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TTGTTTGGGTCTTCAATTTCTTATGAGGGCTCTGTGTATGTAAGGTTATGTGCTTTTCTCTATTAATCTATCTTA  
TGTCAATTTTATTATCAGGTCTACCTGGGACTCTAAGAGAGCAGAGGTGAAATTTGCCTCTGCTACAGTAGGTTCTAT

Fig. 6. 65


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[illegible]

Fig. 6.65

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CATTTTTTATGGCTGCATAGTATTCCATGGTGTATATATAGCACATTTTCTTTATGCAGTCCACCCTGATGGACATTT  
AGGTTGAGTCCATGCTTTGCTATTGTGAATAGTGTGTGATGAACATATGCATACATGTCCTTTATGGTAGAATTAT  
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TAGTATATTGATAGTTTCTTTTGTGCTGCAAAAGCTCATTTAGTTTAAATTAGATACCATTTGTCAATGTTTTATTTTGT  
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GGTCCAGCATCAATCTGCATTTGGCTAGTTAGTTATCTAGCACCATTATTGAACAGGGAATCCTTTCCCATTTGCTT  
GTCTTTGTTGACTTTGTCAAAGATCAGATGATTTTACGTGGGTGGTATTATTTCTGGGCTCTCTAGTCTGTTCCATTGG  
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TAGCAAATGTAAAGAACAGAAATTATAACAACTGTCTTTCAGACCACAGTGAATCAAATCAGAACTCAGGATTAAG  
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Fig. 6. 



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Fig. 6. 67

ACCCAAAAGTCAATTAGGAGCAGGAGGTTGCTTTATTTTCATGTAATGTATGGTTTGGGTGATTTCCTTAGTACTGATGA  
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TCAAAGTTTCAGGATCCACTGGTTTTCCATAGTTTTAGTTTGTCCAGTTGTTTATGTTAGGCTCATTGTGAACAGTGC  
CATTATACTTCTCTTTTCTATAAATGTGGCTGCTTTTGAAGATGGAAGTTGTAGGAAACAGAAATTCATGTAATCTGA  
ATTTAAATTAGCTTCTGTTGTCAGCTCCTCCCTCCCTCCTCCTCATGTTTCTCCCTGTCCCAGACTGCTCTTTC  
AGAGGCAGATGCTATGCAGATAAATGACATTTATTGATTGAGTATTAGAGACTTTTTCTTGACAGACTCAACCATCAC  
AATATTTAAGTAATATTAAACAGTTTTCCCAAGAAACTCAGAGTAAACTAAACAGTGAGTATCCAGGCAGAAAGCCATG  
TACTTTTAGAGCTCAATATGTTTATAATATATAGAAGGCAACATAGAGGCAACATAAATACCTATTCTACTTGGTTG  
TAATCTGCCAATTTATATTTTTCGGAGAAGAGTTTATCACTAAATCACTGAGAGGCAGAGTAGGATATCTGGGGGAAAT  
GGTGGTGGGCGGGGGGCAAGTTTGTATCTGGAAGAAAGATTGGGAGCCAGGAGGATTTTCAAATTCGAATCCCTCAG  
CTCAGTCTTGGGGCATTGTTTTGTCATCTGAATTTATCTTGAACCCAGAGAAAACTGGTTGTGAAAACTACAGATGC  
AATTTCTCTTTGGCTTTTCCCAATAATACTGTAATTAATAACCATGCTGTGTTAGAGTGGAACATTTCTTGGAGAGCA  
TCCTAAAGTGCACTTTGATCAAAATTTGCTTATGTGGCAACATTTAGAAAACACAAGCCTTCGTGGGGTTTCTGGCTCT  
ACTTTTACTGATGGGCTGATAATCTTATAGTAGCATTAGTTTGGCCCAATTACCAAAGATTGTTTATTATTGGTTT  
TTAAATTTGGACAATCCTTAAATGTCTACAGCAGCTTTAGAAACAGACCCCAAGTGGGTGGGTCAGACTAGTTTGGAA  
ACCTCCAATCTTGGCTATTTGGTACCTCAGAAATCAACAAGGATGTGGAAAAATTTCAAATAAAATTAATTAAT  
TCAGTTTGTCAAAGATTATACATAGAACACATTGAAAAAGAGAAGGTTAGCTGGAAGTCAACATAATAGAATTTG  
AAAATTAAGTCTTAAAGTTATGAAAAATATTTCCCATATGTTGAGACAGAATTTGTATTCTCTTTTCTCAATGGCA  
TTTTATGAGACTATATACTGCTGCTCTTCTGTATAAATAGAATAGAACATCTCCATTTTAAATTGTCATGGAATAA

Fig. 6.68



[illegible]

Fig. 6.69

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GGGCGACAGAGGGAACTCCCGTCTCAAAAAAAAAAAAAAAAAAGAAATCCAGATATAACCACACAATTACATGGCAAT  
TGAACAACCTGCTCCTGAATGACTCTTGGGTAAATAATGAAATTAAGGTAGAAATCAAGAAGTTCTTTGAACTAATGA  
GAAAAAGAGACATCATACCAGAATCTCTGGGCCGTAGCTAAAGCGGTGTTAAGAGGGGAAATTTAGGCTGGGCACGGTG  
GCTCACGCCTGTATCCAGTACTTGGGGAGGCCTAGGTGAGCGGATCATTTGAGCTCAGGAGTTTGAGACCAGCCTGG  
CCAACATGGTTAAACCCTGTCTCTACTAAAAATACAAAAAGTAGCTGGGTGTGTGGCAGCACCCTGTAGTCCCAGCTAC  
TTGGGAGCCTGAGGCAGGACAATCTCTTGAACCTGAGAGCGGAGGTGGAGTGAGCGAGATTGTGCCACTGCATCCCA  
GCCTGGGTGACAGAGTGAGACCCTGTCTAAACAAAAACAAAAACAAAAACAAAAACAAAAATTTATAGCACTAAAT  
TCCCACATCAAAAAATCTGGAAAGATTTCAAATTAACAATCTAACATCACAACCTAAAGGAACTAGAGAATCAAGAGCAAA  
AAAAACCCTAAGCTAGCAGAAAGACAAGAATAACCAAGATCAGTGTGAATTGAAGGGGATAGAGACAAAAAAATCCT  
TCAAAATATCAACAAATCCAGGAGCTGGTGTTTGAAAAATAATTAATAAAGAGACTGCTAGCTAGACTAAAAAAGAAT  
AAAAGAGAGAAGGATCAATAAAACACAATTAGAAATGATAAGGGGGATATCACCCTGACTCCACAGAAATTCAAATAA  
CCATCAGAGAATACTTTAAACACCTCTATGTATATATATTGAAAAACTAGAAAAATGGGTAAATTCCTGGACACATA  
CACCTTCAAAGACTGAACCAGGAAGAAATGAATCCCTGAACAGATCAATAACAAGGTCTGAAATTTAGACAGTAGTA  
AGTAACCTACTAACCAAAAAAGCCCTGGACTAGATGGATTACAGCTGAATCTACCAGAGGTACAAAGAAGAGCTGG  
TACTATTTCTGCTGAACTATTCCAAAAAAGGAGGGGACTCCTCCCTAACTCATTCTATGAGGCCAGCATCATCTCTGA  
TACCAAAACCTGGCAGAGATATAACAAAAAAGAAACTTCAGGCCAATATCCTTGATGATCATTGATGCAAAAGTCTCT  
CAATAAAATACTGACAAAACAATCCAGCAGCACATCAAAAAGCTTATCCACCATGATCAAGTTGGCTTCATCTCTGGG  
ATGCAAGGTTGTATCAACATATGCAAAATCAATAAATATTATTCATCCTATAAAAAAACTAAAGACAAAAACCATCA  
TTATCTCAATAGATGCAGAAAAGGCTTTGATAAAGTTCAACATCCACTCATGTTAAAACTCTCAATAAACTAGATAT  
TGAATGAACATACCTCAAAATAATAAGAGCCATATATGACAAATCTACAGCCAATATCATACTGAATAGGCACAAAAA  
AGGATGCCCTCTCTCACCCTCTTATTCAACATAGTATTGGAAGTTCTGGCCAGGGCAATCAGGTGAGAGATAGAAATA  
AAGGGTATTCAAATAGGAAGAGAGGAGTCCAGTTATCTTTGTTTGCAGATGATATGATCCTATATCTAGAAAAAGAT  
AGTTTCAGCCCAAAAGCTTCTTAATCTGATAAGCACTTCAGCAGTCAGGATACAAAATCAATTTGCAAAAGTTGCTGG  
TATTCTGTACACCAACAGCAGGCAAGCAGAGAGCCAAATCATGAATGAACCTCCCATTCACAATTACTACAGAAAGAAT  
AAAATACCTAGGAATACAGCTAGCAAGGGAAGTGAAGGACCTCTTCAAGGAGAACTACAAACCAATGCTCAAAGAAATC  
AGACATAACACGAATGGAACAACATTTTCATGCTCATGGATGGGAAGAATCAATATTGTGAAATGGTCTGCTGCCTAA  
AGTAATTTATATATTCATGCTATTCCCATTAATTAACATTGACATTCTTCACAGAATTAGAAGAACTATTTTAAAAAT  
TCGTATGGAACCAAAAAAGAGCCCAATTTGCCAAGACAAGCCTAAGCAAAAAGAGTAAAGCTGGAGGCATCATGCTACC  
TGACTTCAAAATATATACTACAAGGCTACAGTAGCCAAAACAGCATGGTATTGGTATAAGAACAGACACAGAAGGCTGGGC  
GCATTGGCTCAGCCCTGTAACCCCAAGCATTTTGGGAGGCTTAGGCAGGCAGATCATGAGGTGAGGAGTTTGAGACCACC  
CTGACCAACATGGAGAAACCCCATGTCTACTAAAAATACAAAATAGCCCTGCACAGCAAAAAAACTATCATCAGAGTGAACAGA  
GGTACTCAGGAGGCTGAGCCAGAAGAAATTGCTTGAACCTGGGAGGTGGAGGTTGCAGAGCTGAGATCGTGCCACTGCAC  
TCCAGCCTGGGCAACAGAGTGAGACTCCATCTCAAAAAAGAAAAAAGAAAAAAGAACAGATACATAGCCCAATGGGA  
AGAGAATAGAGAACTCAGAAATAATACCACACACCTCCAACATCTGATCTTTGACAAATCTAACAGAAACAGCAATGG  
GGAAAGCATTCCATACTTAATAAATGGTGGTGGGAGAACGGGCTAGCCATATGCAGAAAATTGAAATTCGGCCCTTCC  
TTACACCATATACAAAAATTAATCAAGATGAATTAATAAATTAATGTAATAACCCAAACCAATAAAAAACCTAGAAGA  
AAATCTAGGCATTACCATTGAGACATAGGTACAGGCAAGATTTTCATGATGAAAAATGCCAAAGCAATTGCAACAAAA  
GCAGAAATTGACAAATGGGATCTAATTAATACTAAAGAGCCCTGCACAGCAAAAAAACTATCATCAGAGTGAACAGA  
CAGCTTACAGAAATGGGAGAAATTTTGAATCTGTCCATCTGACAAAAGTCTAGTATCCAGAGTCTACAAGGAACCTTA  
AACACATTTACAAGAAATAAACCAATGGCCCAATTAATAAGTGGGCAATGACATGAACAGACACTTTGCAAAAGAAAA  
CATTCTGAGCCCAACAGCATCTGAAAAAAGCTCAGCATCACGTATTAGAGAAATGCAAAATCAAAACCAATGAG  
ATACTATCTCACACCATCAGGACAGCTGTGATTAAGAATAAAAAAACAACAGATACTGGTAAAGTTGTAGAGAAAA  
GGAATGCTTTTACACTGTTGGTGGGAGTGAATTTGGTTCAACTGTTTGGGAGACAGTGTGGCGATTCTCAAAGACC  
TTGAGGCAGAAATACCATTTGAGCCAGATCCCATTACTGGCTATATACCCAAAGGAATATAAATCATTCTATTATAAG  
ATACATACATGTGTATGTTTCATCAGCACTATTATCAAAAGCAAGACATGGAATCAACTTAAATGCCCACCAATGAT  
AGACTGGATAAAGAAAAATATGGAACATATACCATGGGAATGCTATGCAGCCATAAAAAAGGATGAGTTTCATGTCTTT  
GCAGGGACATGGTTGGAGTTGGAAGCCACTGTCTCAGCAAACTAATGCAGGAACGGAAAAACCAACACCAAGGTTCT  
TACTTATAAGTGGGAGCTGTATGATGAGAACACATGGGCACATGGGGGAAACAACACACTGGGGCTGTGGGGGTGGG  
GTGGCTTGTGGAGAGGGAGATATCAGGAATAATAGGTAATGTATACTGGGCTTAATACCTAGGTGGTGGGATGATCTG  
TGCAGCAACCCATGGCAGATGTTTACCTGTGTAAACAACTGCACATCCTGCACATGTACCTTGAACCTTAAAGTT  
GAAGGAAAAACAAAAGAGGATATGTTCTTAGTTTCTATACCTATGAGCCAGTCAATTGGAAGTGAAGCTGGGTAT  
GCCAAGGAATACTAAATCCCTTTACGGTTTCAAAGTTAGAACCTATTTTCTCTTAAGATTATGGAATTGATTATCC  
ATTACTTTTGGTTTAAAGGCTGTCTTCAATGGTTTGTAGTACAAAGTTGGTTCACAGCAGCATTACATGATTTTAGCCAG  
AAGCTATTTTGAACCTAAATTTCCCTATCAGAAGGTTGAAAAAAACCTAATTTTACTTTTATTTAGAGCTTGTGTGCTA  
ATTGTTTCTTCTTCTTTTGGAGATAAGAATCCCTCAAAAGAAATAGTGAAACAGAGACTTCAAAGTTCCGTGG  
TGACTGTTGAAATATAACGAATCGCACTGTGTTGAATTTACTGTGATATATTTCTAATGTCTTATTTGGTATGTT  
TCTCTTGTGTTATTGCTGACACAAACCAAGAAAGAAATTTCTTTATGCCACTGATTGCAAGGTCGTATAGAAA  
ATGAAGGTCAGATAATGGATGTTAATCATCCTCATTGATGAGATACATTGACAGGAAACATAATTGAATTGCACATAT  
TAGTGGAAGATAAAAAACCATTTCAAAATCGTTCTTAGTAGAGAAAAATGATAGGAGAGCTAAATTTGATGTGAAA

Fig. 6. 30

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AACACAGAAGGAAGTTAAGGGATTAGAGTGGGAGGGAAATTAGTGAATATCTATTTGTGTGCATGATTGCATTTTGGAA  
ATAATTAGTTGCCATAATTTGTGTATCCAAATATAGTAATTGTTTTTCCATAGTCATGACTTAAATATTCTCTGTGTGTA  
ATTTTCAGTTGCATACATTTTTCGAGAATCAAATTCAGAGGAATACATTTCATTGAAATTTCTCTAGGGATGTGTT  
TATAACCCATTTTGGAAAGAGTAGAAAGATTTTTTCTCTTCCAAATGGCTATGAAGGTGGATAACCTCTCTGATCTT  
TTAGTAAACACTTTTATGTAGTTGAATGGTATGCAGTTAGTCAATACAAACAGGAGAGATTGAGGAAAAATAACATGCTTA  
ATGCAAATAAATTTCTGTACCTGATAAGTTAATTGAATTTTTCTCTGTAATCTTTTTTTTTTATTTTCTGGTAG  
ATGCTTGTGATTAAAGGTAAGATAGAAAAGAAATCATCAAATATATGTAAACCACAGCCAAATGATGAATTCATAGTT  
TTTGCTCAAGTAGAGGGATTATCTGAAAGTACAAAAGAAATTTGATAATTGAGAAATACATTATTTTGAATGCACATTT  
GAAGTAGCTAAAAATCTACGCCACAGCTGAATGCACCTGGCAGTTTGTAAATCACATCCATAAACATGAGTCTTCTACA  
ATTGGAGTGGGCCCCACACTTGGAACATCTTGAAGATGTTTCTTCTTGGCTGTGCTAAATTAAGCATGCAAAGAAGTT  
ATATTGTGTTAAATTTCCACAATGAAATCTTATTTGGCACTTCTGTATAAGTGGCTGGGAATAGAAATTTCTCATTTAT  
GAATCAAAACACTTTGCCTTTTTATTTGGAGGTCAACCTACTAACCCTTGGTTATAGGATAATACCAGCAATTTTATTA  
TAAAGTGTATTTTCAGTAATTGGAACGTGTTTTGATTATACAATTGGATAGAATGATAATAAATGAAATGAAAGAAA  
TTTCTCCCAGAAGATTGAGTTAAAAATGTTTTGGTGTAGAAATGAGATGATGTCCAGATTATAGCATGTTTGGTAAAC  
CATAACATACTTCTCGATATATTGAATTCATGTAAATGCTTATTTCTTCAAACCTTTAAATTTAGAGTATTTTCTC  
CCTTCTGTTTAAATCAGTTCTATTATAGTGGATCTTAGAAAATTATCCAGTGATTAATTTCTCCATATTTGTAGC  
TTTCATTACTTTTATTTCTGTTTTTGCCTAGGCTCCTGTTACCAGCCTGTTCTAATGTCACAAAACCTTGGCAAACCC  
TACCCAAGAAGGGTAAGGTTTAGTATCTATGAATTTTGAATACTTGATGAGAAAAGTTGCTTTTAAATTTATTTGAA  
TCTTATTAATACCAAAAATATTTGAAAAAGAGAAGCAGGTACATTTTCCAATATTCAAATTTCAATGTATATAAT  
ACTCAAACCTTTTTTATAAATATACTTTAAGTTCTGGGATACATGGGCAGAACGTGCAGGCTGTTACATAGGTATA  
CATGTGCCATGGTGGTTTTGCTGCACCCATCAACCCATCATCTACATTAGGTATTTCTCCTAATGCCATCCCTCCCTTG  
CCCCCACCTCCCGACAGGCCCTGGTGTGTGATGTTCCCTCCCTGTGCCCATATGTTCTCACTGTTCAACTCCCCTT  
ATGAGTGAGAACATGTGGTGTGTTTTGTTTTCTGTTCTGTATTAGTTTGGCTGAGAAATGATGGTTTTCCAGCTTCATCCATG  
TCCCTGCAAAGGACATGAACCTCATTCTTTTTATGGTGGCGTAGTATTCCATGGTATATGTGCCACATTTTCTTTATCC  
AGTCTAATATTGATGGGCATTGGGGTTGGTTCTAAATCTTTGCTGTTGTGAAAAGTGCTGCAATAAACATATACGTGCA  
TGTGTCTTTTGAATAGCATGAGGGAAGGAGATTGGAAGCACTTGACTCATTGTACAATTTAAATACGCCAACTTTGTC  
AACTTTTATTACAACCTGGAAGCACTTATGGTACTTATTAGAAAAGAAAGTGTGTGTGGATACGTATGTGTGTAAAAATA  
TGGCTCTTCTTAAAGGAGGCTTACCCAGTCATTTTTTTTTTGAATAATAGCTGCATTGGAGGTAAGAAGGTACCTCAAG  
ACATTTCTCTAATTGTGAGGAAAAACAAATAAAGGAGATGAAGACTAGGCTGCTGTCTATTCTGTGCCATCTCTGAC  
ATCTATGGAAAGCCTAGAGGCCCAAGAATACTTCTCCCGAGGGTGCTATTGTCAGTATCTTCAGGGTCTGTAGTCTGAA  
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AAAATTCATATGTTGAAGTCTCACCCTCAAGGTGATTGATTAGGAGTTGAGGCCTCTAGGGGGTGTGTTAGGTGATCC  
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GTCCCCATTCAAGCAGCTGCCGTGATGATGTTAGCTGTAATCTCCTGTGTTTGTGCCTGACTTGCTGCCCTCAGTTTAGCT  
CAGTGGTTCTCAACTGGGGGCAACTTTGACCATAGGGACATTAGGCAACGTCTGGAGACATTGTCACAGCTAGAGGAAG  
GGTGCTACTGCCATCTAGTTGGTAGAAGCCAGGGTTGCTGCTAAACATCTGTCAGTGCACGGGACAGCACCTCCTCCCA  
TCCAGCAAGGAGTCTATCTGTAGGAATATTGATAAAAGCCATCTACATAAAAGCCCAACAGCTCACATCATAATTTAA  
GATGAAAGACTGCTTTTCCATAAGATTGGGAACAAGGTAGTAATGACTGTTCTCAAATCTCTATTCAACATTTTACTG  
AAGGTCTTAGCAACAGTGCAAGAAGAAATAAATAAATCAACAATTTGCAAGCAAGAAGTAAAGCAGCTTTTATTCA  
CGTATGACATAAACAGATACTTAAATAACCAATAAGGAATAGCTTCCATAAAGGGGACTTGAACCAATAAGTGAGTTTAG  
AAAGGTCTCAGTATCTCAGTCAATACAAATTTAATCATGTTTATAAATACAATGGACAATTTAAACTAAATATTTAAAC  
ATTTCACTTTCTTATAATGCCAGAAAATAGAAAATACTTAGTAGCAAATTTAATGAAATATGTGCACAATTTTATACTG  
AAAATATAATTTACCAAGATAAATTTAAGAAGACTTCAATAAATGGAGAGATATACTTTGCTCATTGATCAGAAGACT  
CAATAACAATTTAGGATATTAATTTTCTCTGAATTAATCTATATTTCAATTTATCTTAACTCTTCATCACAATGGCTT  
TTATTTTATAGGAATTGACAAGCTTATTCTAAAATTTATATGGGAGAGTAAAGAAGGTAGAATAGTCAGAATAATCTTG  
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TGAGGTTTTTGACATAAGGATAGACAAATAAATGAAGGAAATAAAGAGTCCAGAAATAGACACACATTTATAAAGTAAA  
TTGATTTTTTTTCAAGACACCAAGCAATTAATAAAGGAATGGAGAGGCTTATTTATAAATGAAATTTGGAATAAATTTGA  
TATCCATATGGGAAAAAATAAATTTTCACTCCCTAAATTCACACCTCAGACAAAAATCAATTCAGATGGATTGGAGA  
CCTAAAAGCAAAGGTAAACTCTGATACTTCAAGAACAGACATGACAGGATTGAGAAAATTTAACCCTCAAAATTTGG  
TAAATTAGACTGCTCATCAAAGACATACGTAAATGAGTAAGAGAGCCACTAACAGGACAAAAATTTTGTAAAAACATA  
TCTGACAAAGGACTTTAATCAATATCACATAAAGCACATCTACATTAATAAGATAAAGACCAAGAAAAATAGCTCAATA  
AAAATGGGCAAAGCATTTCAAGGGACACTTTACAAAAGTAAATATACAAATGGCCAAATGAACACAGTAAAGAGTCTCC  
ACATCTTTAGGCTTCAGCTAAATGCATTTACAAACCAAAAGAAATACCACCACACATCCACTAGAAAGGACAAAATTA  
AAAGGTTGAAAACACCAAAATCTGGTGGAGGTTAGAACCACTGAACCTTTACACTGTTGATAGGAAAAATTAATGTT  
GTAACACTTTTGAATAATGTTTTGTCAGATAATAAATGTTACTTTACCTACCTTTGACCTAGCAATTCCTCTCTAT  
TGTTTACCCAGAAGCAATTTTATGTTACACATAAAAAATTTATCATACATAAATCACTTGTAAAAATATTTCATAAACC

Fig. 6. 71

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CACATATTCATAAACCACATATTAATCAAAGAGAATCAATAAAACAAATTTTGTACAGTTATACAATGGAGTATTAC  
TCCGCAACAAAAATGAATGAAGTACTGATACCTGCAACAAATGAGTGACTCTCACAGACAAATGCTGAGTCAAGGAA  
TCGAGACAAAAAGGAATACATGTGGTATGATTCTTTCTAGGAAGTTCTAGAACAAACCTTAGGTTAGAAAAAGGGAA  
AAAGGTTAGCCTCTGAAAGGAAGACTGACCAGAGAGATGAGAGAACTTTCTAGGGAGATGGAATGTTCTGTATCATA  
AGGATGTGGGTTACATCTTTTTTTTGTGTTTGTGTTTGTGTTTGTGAGACAGAGTCTCGCTCTGTTACCCAGTGGAGTGC  
AGTGGCGCCGCTCTGCTCACTGCAACCTCCGCTCTCAGGTTCAAGCGATTCTCTGCTCAGCCTCCCGAGTAGCTG  
GGACTATAGGCGTGTGCCACCATGCTAGGCGAATTTTTTGTATTTTTTAGTAGAGATGGGGTTTACCCTGTTAGCCAGG  
ATGGTCTTGATCTCCTGACCTTGTGATCGCCTCCCAAAATGCTGGGATTACAGGCATGAGTGGCCGCGCGTTACATC  
TTTTTAAGTATTTAAGTAAATTTGGTAGTCAGTGTTGAGGAATCCTTCTAATGACTCTTCAACAGGGGTGGCTTATGAA  
ATAGTTCATCAATTTTTTTTTCTGATAAGGGGAGGTTGAGGCAGGAGATTGCTTGAACCTGGGGGGGAGAGGTTTCA  
GTGAGCCGAGATCATAACACTTCACTCTAGCGTGGGTGAAAGAGTGAACCTGTCTCAAAAAAAGGGGGGAATTTAC  
ACTCTTGAAAAATAATATTTTATAAGGAACTTTAGAGTTCTCCAATATACATGATCAACAAAGGACCTGTTACCATT  
TGGACCATGTGATAATAGAGAGGAGATAGTTCAAAATTAGTCATATGTTCCAACAACACATGATTATGGAAATCTGTC  
TTAGAATTGAGAGTAATTGAAGTTTTTGTGTTTTTACTGGTATTAATAATGTTATTACTCAATTCGTTGACAGTACCAGT  
CTCTGCAATATCTTTTTTGTGGGAAGGGGAGAGGACCTGTTCTGCTAATTAGAAACACATCTACATTTTAAGAATAAA  
ATATTTTACATATCTTTTTTGTATTAAATCTGCAAACTCTAGAATTGGAAGAAATAGCCTTCATAACTCTTCACTGCA  
AAAGTTATGAATGTTTGATAGAATTAATTAAGCATTCTAGTAGAATTAGACTTGTGTTGAAGGACTGTAGGATCTTTGG  
CAAGAAGTGTGTTTTATTTGTTTTCAGATGTATACCATTTTTCTTAAAGGTTTACAAGTTAATCAATAAGATTCTTGG  
CAGAGCTAAGTACAAAGAACAATATGTATTTGCGATACCAATGGATCTAAGTCTTAAAGTTTATTTGATGCTCGAA  
ATGTTTGGCTTTCACTTTGTTTAAATGAATAGTGTGTATACAGTGAAGACAGGCTTTACTTAGCCATGCTGACCCCT  
CTGTGATTCTCTCATATCCTCAGTTATTGTAAACCATACTTAGTGAGACCAAAAGGATATTTGTTTGGCTGATG  
GTATTATTGGAACCGTAAAAATTTATTCTTTAAATAATGTGTTTTTCTATTGAGAAAAATAATGTCTATAGAGATA  
GTTATTTCAAAATGTAGTTTTCAATATGCACTTGTGGGTATGAACATGAACAAACACATGCAGACACACAGAGTCTGAC  
GTTATATCTAGAATGTTGAATCTACTTTTTCTACTTTAACAGGAATGTTTCCCTATGTAACGAAAAAGTCTGTATAATGT  
GTCTCTATTATGTGATTATATGAATTATATATCTTAATTTACTTTAACCATTCTTTTATTGTATTGGTCATTTCCCAT  
ATTGCATACAAATTATTAGGGAACATCTGTGTGCAACATTTTTATTACATTTTGGATTATTACTTAGAATAGATTCC  
CCGGAAGTGAACACTACCAGGTCAAAGGCTTTTCCCAATTTATTTTTCAAAAAGAAATCCCAGTGTATTCTATAAAGT  
ATGCTTGTCTCACTGCCAGTGTGCTAGCCTTACATGGTTTTTTTTTTAATTTTGTGTTTTTATAAATAGAATCTCATGT  
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TTAGGATTTCTTAAAGATTAGCATCATCTCTCTTCAAAACGTTATATTTGTTCTGTTATATTGTAATAGGTTTTTTTT  
TTGCTTTTAGCTATTAAGCTTTTAATTATATATACTTTGTTTTTAATTTAGAAAAGTAAAAATTTCTTCAATGGAGTTCTT  
TTTTAAATGAATCTTTGACATTTTTATTATTTTGTTCAAAGAACCTTATGGGCAAGTGAATCTTACACTTTTTATTA  
CTGGATAGCGGATAACATTCATAGTTTGATATTTAATCTGTAGCATATAGTTGACTTTTTTTTGGAAATCCTTGC  
TTTTAAACTACAATAAGGAAGGCAGATGGTTAGCTTGTGTTTCTCATTTCTGAAAATGTCCAAAGATTGGAACCAATA  
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TGCTCATTAAGATGTTGCTCTTTGGATAAACAGGAACCCAGAAAAAGATTCTAACAATTTTGTATGCTACCTCACA  
TTCTCTCGAGACAGTGCAGAACATTTCTGTTCTTTAGAAAAATTTAGGTCCTTTCTTTTGTGTTACAGCACTTACTATT  
TGCTCTATTGTATTATTGGCTTGTGACCCCTTTTTTGGGGGGTTTACAAATACACTAGGGGAAGAGTATTTTTAAAAATC  
ATTATGCCTTTGCTTTATCTATGTCTGTATACTCTCTATTGTTATTATTATTATTATTATTATTATTATTATTATTATT  
CTGATTGCCTAGGCTGCAGTGCAGTGGTGCATCAGCTCACTGCAGCCTCCATTCCCAAGCTCAGGTGATTCTCTCC  
CACCTCAGCCTCCTGAGTAGCTGGGACCACAGGTGTGCGCCACCATGCACAGCTAATTTTTGTTATTATTATTATTATT  
GGGATTTCACTATGTTGCCAGGCTGGTCTCAAACTCCTAAGCTCAAGCAATCTGCCACCTCGGCTCTTAAGTGCT  
TGGATTACAGGTGTGAGCCACCCTCCCTGCTCTAATCTCTATGATTATTCTATATGATTATTTTCAATTAATGTATAAGTT  
TTTTCAAGTATGGGTTATTCCATTGAACAAACCAATTAATCTCTGCTCGTCTATAGTCATTTCTTATTAGATGTGTCA  
GTTCTTAATTTATCACACATTAATTTCTTTTTTGTTCCTTATACATTTTGTTCCTTGAGATCTTCAGAATGTAAAT  
CAATCTCCATTCTGTTATGATTATAATCATTTACTTCTCAGATGATTCTCTCTTTAGTGCTTTGTGCTTCTGTTATA  
TTCTTATTACTTTTGATCTTTTATTGTTCTAATTTACCTCTCTCAACCCATCCCACTGGAAGTATTATATGAA  
TGGCTGATCAGATGGAATCCACATATGTTCCGTATGCATGTATAGATTTTACTCAAGCCACTAGTGGAGACACTATTCC  
TACTTACACATATGAGTACCAACCTCTCTGTGATGCAGCAATCATATCTTGACATATCTAGAAAGTTTCACTCTCATCC  
ATAAATTACTTCTCTTCTCAAATAACTCAGGGAATTTTACATTAACCTACCAATTTAACAATTTAGGAAAAATCA  
ATTCAAGTACATGAGGTAAAAGATGCGCTGTCAAAATTGCAAGTGTCTTAAGGTGATTCTTTTTGACCAGACTAGAAAC  
ACTAATCTGGCACTATTTAGTTGGGGTTTCTGTTGACCTTTCCATGCCATAAAAAATCTCTATAAAACAGAACAAATG  
CACATTTAATTATAGTTTCAAAATTTGCATTCTTGGATGAAACTTTTTCTCTGTGCTCCACTCTTGCCATAATTGCTAC  
ATTGTCTACTGTTAATTTGCATTTTAACTGAGCTTTAAACATTTAACCAGAGATGGTCCAATCGGAGATTCTATAACC  
ATCTCAGTAATTTGAGGCAAGTTATTTTTATTGCTATTTCAGCAGTAGGGAAGTCTCCTCTACAGGGGTGGGAAAG  
AGTTGATACCTTCAAAACAGACTCTTACTTTGGGGCTGTGATGAGAGAAACAGAACAGAGTTAGGAATGGTGAAT  
TAGAAGAGACAGATGGTGAGAGATTATCATGATTATAGGATCACCAATTTGCTAAATTTACTCCAGAACTTTTTTA  
CCAGTTAGGGCAAAATGTATGCTTATTTTGTGAGCTCTATAGATACATTTAAATCAGACATACTGGACTTTGCATTCTG  
TTATTTTTTTGAGGGGGGTGATATTTAAGGAGTTCTAGAAACAGCCTACATTAGACTTAGTGTTCAGCAACTAACAA  
ATTTAAATGTTATAACATTTTTCTAACGCATTTTCTTTAAACACTCTGGGGAAGACATGAATGTAAGATGACTGA

Fig. 6. 32

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TTCTCAGATTATCTGCTTTTGAACAACCTTCTTTTAGCTGCAAAAACGTAGTGACGGTGTCTCAATGTGAGACGGGG  
AAGATTTTAGTGGGCACAGCAGCTGTTGACTCAAATATAGTTATACATGTTCTTCTGTGTTTTCTTGTAGGTGAATCA  
GCAGTTTAGTTTATATGAAAATTAGCAATCTATAAGATGATTCTGAAAAATGAATCTCAGAAATTAAGGTACACAC  
ATGGCATGATTGGTGAATATGAAGTGCTGAAGTGAATACTCATATCCCATTGTGATCCCATTGTGATGTTCTTGTGCAAT  
TATGGTCATCATGTCAAGAACAATAATCAATTTGATGCGATTGAAAATAACAAAAATGCTTTATGTCTTTTGTAGAGAAAT  
ATAAATGATTTCATTTGTAATGAGAAACCTCAAACCTGAAAGCACATAAAATACCAGGTATGAGTGTGCAATTTGAAGTC  
TCTGACTACATGAGAGTTGTCTGTGAAATAAAATATCCAGTTACACAAAATATTCTTTATAGTTAAAAAATCTTTTTC  
ATACATATCACTAGTTAACTATTTTGTAGTCCCCTCTTCTATGTGCCCAGCAGTGAGCTAAAAGCTGTGCAATTTAATG  
CATTTCTTCATTGTATTTTGTGTTTTATTTTGTATTGTTAAAGATGGGAAAGACCAATGAAAAGATGTCAAACCT  
TTTCTGGGGGTGGAGAGGACATTTGCATTTTGAATTTAGAAACCTAAATTAGAGGTTTAGGAAGACTCATAAATATGTA  
GCAGAGGTTTGGTGGTCACAGCTAGAAGCTGACCACCACCATGGGGCAAATAATGATTAACTCTCTGTAAAGTATT  
TGATTAAGATCATCGGTATATTTTCATCTGTGACATTATCCAAGAAGAAGATGAATCTGAGGGAAACAATGCTTGCAGA  
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CCTAAACTTTTAGCTAAAAGCAGATAACACACTTCTTTTCAATAATGCATTGTATCTGAATTAGGACTTTAGTGTT  
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Fig. 6. 23

[illegible]

Fig. 6.74



80/375

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Fig. 6.75

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GAAAGCAGAAAGAGCACCATAGTCCCTGAACAACTCTGGGCAGAAACACATGGGTTTGGGATAATACACGTGCATTTT  
CTTCACTCTCTACATCTGCTCAAGATGAAATGGTTGGGACATTATCATTTTGTCCATAGCACAGGAGAACATAGTTA  
AGTCATTTGGTTGAGCCTGGAATGCAAGAAATGTGCTACTGACATTCTATTTCCACTTACCAGATAGCCCTGAGA  
AGACAGAAAGATGGGTATAACTTGGGTGTCTTCTCTGCTCTCTTAGAAATAAATCTTGAACCTTATTGACTAGATT  
GTATATCCACCTAGAATTGGGCCAGAGTGAAGACTAATGCCTACAGTATGCACACCCATGTTTGGGTGCTGTCAGAGT  
CAGGAAACAGAAGCCTGGAGATTGCTTAGTCTCTGCTTGTGAGATTACCAGCAAGCATCCTCTCAGGCACAGACTG  
CCCAAGGGTGAAGCAGCAGCAGCCTGGAGAAGCTGCCAATGTTAATAGGATGCCAAGAAAGAAAGTGAGCAAAATTAGA  
AAGATGCCCAAGCAGCTTATCTATTGGAACCCAATCTTTCTTTCTCTACAAAAATTTTAGATTGCCAGACTCTTGA  
ACTTCAAGGTTTTCTTTTATAAAAATTAATTAAGAAAGTACTCTCATTTCCACTATCTATGCTCTCTCCAGAGCCTGC  
TTTCATGGGGCTTTCCAATATCTGCTGTGGGGAAGCAACTGTTTGCACTTCTTGCAAGAGATTTAACTTATTTAATC  
AGTTTCCCTCTCTCTCTTTCTCCCTTGCAATTTACTGATGATAAGATTGTGTTGAGGTAGAAATTTGGCTGCCTGTTG  
AGTGACAACAGCGGACCCAGCCCTTGTAATGTCTGCTCCTTCTTCCCGTGCATCTAGTTTCTGCTCTCTGCGAGT  
CTCAGCAAGCCCTGTGAGGCAAGCACCTTCTTCTCTTACTGTGGACAGCTGCTTCTCCCAAGCTGTCTGCCATCTCA  
GGAGGACCAACCGCTCTTTGAGTTCTGTAGCTTCTGTCTGTTCTTGTGAACCTTATGTTCACTAATGTAAATGGGGCT  
TTAGTCTTTTATGACTTTGTATGTAATACAATGTCTCAGAGAGCTGCTTCAAAGAATCACCTTGCTCTCTCTGCCCC  
GACTCGGGGCTCAGCTTGGCAGGAGTGTGATGTCTCAGAGCAAGTACAGCATTTTTTGAAGGAGCAAGGTGTTAATGG  
CAGGTGACTCTGGCCCCCTTTATGTGCTTGTAGCTGTTTTGCCAGGTACAGAGTGGGAGTGAAGCAAGAAAGGGTTTTT  
TCTAGTCTAGGTTCCACCAGCTAAGGCCTCCTGATTGAGCCATCTGTAATCCAGGGTGACCTTGAGGCAGCCTATA  
AATCATTCTCTGCTCTGCCACTGTGTAGGTTAAGGCTTGAATTAAGGTTCCAAGAGAGGTAAGGTAAGGTAAGCA  
GCTCATCAGACAGCCTGACCACAAATTTCCCTCTCATTTGTGCTCCTGTGGGTGAGGTCTCTAGCCAAATGACTTTCC

Fig. 6.77

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TTATCTTGAGGACCAGGCCAGTATCTGCTTATCCCTGAGGAGTGGGTTTTGGTTCCCTCACAGCCTGTGGAATTATTC  
AAACAAGCCAGTCACATCCTCTTGTGGGGACCAGGGCTACCTTGCCCTTCTGTTACTTCAAAACCAGCCTCACATAGGC  
CCTGCCTGTTACCTTTCTGAGTGTGGCCCCCTGTGTGGCCTGTGTGGGTGCATTGTCTCCCTGGGCTGTGAGTAG  
ATATGACTAGCGAACTGCTATTAATCTCCTCTGTTAAGGTTGAGTGTCTATGTGGTTGGCCATCCCCATATTTCTAGGGT  
GGGAACCTCTCCCTCACCAATGGGGTAAAGAAGACACTGCATTACGCTTTTCTAGCCTCTTAGCATGTATAACTATATT  
TCCACTTTTCAACCATTGCCCTCTCTCGTGAATACACTACAAAGAGAAGGAAACATGCCTGTAATTTTCATCATGAT  
ATCCTTGGTGTCCAGCACAGTGTCCCTGGCACTTGATAAATATCTGTTGGATAAATGAATGAGTGAATTCCAAGGGTT  
CTTTCTGAGTAAAGATTCCACTAAATAGTTTCTCCTCTCATTGCAAAATGTTGTCACTCCATAATCAGGGATGGAATG  
AGGGGTGTGAGCAGGGTGTGCACGTACCTCTAATCTTCCAGGTTCTTCCAACCTCAGAGGTGTCCCAAGCAAGCCAA  
AGAGAATAACAGATCCTTAGGATGTATCCACACCCCACTCAGTGCCATCTCAGTGTAGATTGATGTACTTTTCTT  
GAGATAAACATTGACAGATGTGCTGAATTTGGCAACCAACTGTACTTACATCTTCTGAGACATTCTAGTCCACTTAC  
CCAGTACATGTGAAAGGACTTTAGTGCTCCTCTTTTGTCTCTGGGCTATCTTCTCAATTCTGATTTGTTGATGTA  
GATGGCTGTTACAGCAACAATGAGAGCGTGGGGCCTGGGGAGGCAGAGAGCTTTTATTCTAGTGTGTTGATGTT  
TTGGCTATAGCTAGGCCAAGGTACTGTCTATTCTGTTTGTATTGCAGTCAAATTAATCAACAGGCATTTTTTTCTCAG  
CCATCTTCAAGTCGTGTGAGGAAAAATTTGGCCTACATGAGGTTTAGGAACTATCTTTTATTTCCTTTATTTTCATG  
AACATTTGAGCTTGAGGAGATGTGAGCATTTTTCAGATCATTGGGTCTTATAGTTTCAGGCTTCATATTTTGTGCATT  
CCCCTTCTAAAGCTTTGTTTTCATATATTTGCCATTCCTCCAATCTAAGTCTCACCATTAAAAAGTTAAGTTCACA  
TCTGGTTTCTGGGAATTTGTCCTCATTATCTTTTGTCTCTCTTTTCAGAAATCCCTTTTAGTTTATTATTTATTTT  
ATTATTTTATTTTAGTTTATTATTTTTCACATGTAGTGTCACTGGTATTTATTATTTTAGTTTATTATTTTAC  
ATGTAGTGTATTTATTTTATTTTAGTTTATTATTTTTCACATGTAGTGTCACTGGTATTTAATTTTACTAATTTTGTCT  
TCTCAAAGCCAAGGACTTTGAGGAATTTCTTTCTTCCAGGGTGCCTTATACAGTGTCTGCTCATATAAGGTTGTT  
ATTTTTCATAATAGGTTTTTCTGCTTGAATTTTGTATAGCAGGAACAGGTAGGTATGCTCTATAAGGGTGAATGTT  
GTTTCATAGGAGACAAAATAACAAACTGGTGTCACTTTGTTTGAAGCTTACATTAAACGGGTTTCAAGGCCTCTGAGC  
TCTGTGTATTGAAGCAACAGAAACCATGAAGCATTTTATTGCAAGCAATCAGGCAACTTCCAGATGTTGCTAAACT  
CTGCTTTAACTGTTGTGTAGAGCTAGTTTAACTGCATCTCCCACTGCTACTGGAGACAATGATTCAGAGATGTTACT  
AATTGTCACTTGTCTTTGCTTAGATTTCTTCTGCTCCTTGTGGCGTCACCCAGCCGCTAGACGGGCAATGGATTAG  
AATTTACATGGAGGCTGTGGTCACGGTGTCTCAGGTGTTAAGGAACAAAGAAAAAGAGGTGAGAAAGAAATAAATCAA  
ATCATTATTTTAAATGTCTTAGTTTCCAACAGGCAATGGAATTTAAGGGAGATTCCCTGACGGTTACCCTAAGACAT  
CTGCTTTGGAGCCCTTAGCAGAACTCTCTGTGTTGGATGATTGGTCTTAAGCCTCATTAAACAGAGGCTTTGCGGCTCCA  
TTGGAGGTTGGTGCAGCACAGGTGGGCGTTAGCACAGAGGTTTATAGGACCAACCCACTTCAGCAACCAGCACTAATT  
GGCTCCCCAGGGAAGTCCCATGAGAAGCTGTCAATCGTGAAGACTGAGTTTTGTGTTATAATATGTAGTGATTCTCCT  
TTGCTGCTCTTTTCTCCCTATCCAACTGCCTTTCTTCTGTCACAAATAGGTGGTGGTTCCTCAAAGTACAGATAA  
TTAGAAAGTTGAGGCAACCTTACTTTGATTCCAATGCATTTTCTCCACTCTCTATTCTCCCTAACCTTCCCTAT  
CCCCACCCTTAGTGTGAAACAATACCTGTCTATGAGGAGAACCTCGCTGAGGTTGTGCTGACAAAGATAGAAAGTA  
GTGTTGAAAAATAAATGTACATCATCAGTGCATTTTATGAAGTGATTCTAGTTTCTGTAATGTGACTTCAATTATGCT  
GAAATGGAGATCTTAGTCTCATCAGTACTTTTGTAAATCATTGTATTTAAGGTTAAGTCACAGGGCAGGAAACAC  
CTTCTCTGCAGGATATTGGGTGTAAATAAAGAGAGGCTTTCTGTGTCTGGGAATGTTCTGCTAAGAAGACAGTGATG  
ATAATAGTTACCACTGAATAAGTACTGACATGTGAGGAATACAGGATCCCTGCTTTACAGGAAGAAGCCGAGGCTCA  
GAAGTACACTGTCTAAGGTCCAGAACAAAGTGAAGTGTGAGGATTTGAAGTTAAGTTTGCCTGATTCCAAAAGTTTC  
TGTTCTTAAAGCTGTGTTTTGCTCATGTTTTGATTATGTTTGGCCAAAGGCTTTTGGTCCAACACAAAAATAATTT  
AAATTAGTTATCAGACCAAGCATTCTTTCCAGTGTTTGAGGGACGGGAGCAACTCAGGTGTAGTTGACTAACCATTCTA  
CATTGGTGTATTTCGTGGGGTCAATTTACAGGCCGTAAATCAGTCATAGTTATTGCCAAATCCAGGTGATAGTAGGCT  
TTGTTGGGTGGTGAAGGTAGATTAGAAGGACTTTAGCTTGCTTATAATCTCCCTGTCTTTCTTACGCTGAGGTAGAAG  
GTTGGTGAAGAGACTAGAAAGACTTGGGGTAAAGTCTCAAGTATTACACAACTGAAATTTGGTCTGTCAACTGCCT  
AGTTATGGGACATGATTAGTGCCACAGGTACAGGGGATTTCACTTCTCTGGTCAATATGATGCAGGATACAGGGT  
TGGGGGATGTTCAAGGAAATAACAACTGCAGAAACATCAATTTTATCTGTTTCATGCACTTGTGGCCAGGAGATT  
GGTAATTTCTTCTTTCTGATAATACTTAATTGAAGAGACTTTTATTTTGTAGTACTTACAGGAGGACTTAAGCCCCG  
ATCAATGCAAATTGATTTTTTAAAAATCATTAAATTTAAACCTTGGGCATTATCTTTAGGTTGTAAGTGCTAAACT  
CAGCCACCTCTTCTTCTTATTATGAGCAAAAGTAATCAAAGACCATCAGTGCTAATTAATTCAGATAAGCCAAAAACA  
TACATATTCTTATTTTAAATGAAGAAATGTTAGTGTGTGATTGTTTTTATATTATTTTAAATAAAGTTAAATGGAA  
TAGAAAGGTACCAATTTAATTACATATTGAAATTCCTTAAAGCCTTCTCAGAACTTCTCTTTTAGTTGCAGATTAC  
AAAAGAGATGTAGGGGAAGATATAAGGGAGAAGGAGAACTCAGTTCAAATGTTTTTTCAGGCTGATTGCGGTAGGAA  
AATTGATTCTGAAATCTAAGTTTGGAAATTAACATAAGCAACTCTTCAAACATAACCTGGTCAGTGATTACCATC  
CAAACATTCAAGGTGTTTCTAATTTGATCAAGAAATGGTATGGAACAAATGCACATGTAATCTAAACCATATTTAGCT  
GTAATTTTACCTTCTCCTATTGTATCCTATGTTCAATAAAATAAATATCTCTAGCAAGAAATCAATATAAATGTT  
TCCAGTCTTCTTCTTCTTATGTCTTCCATAGGGTAGACAAATTCAGTAAACAATAAATGATCAAAATATGAGA  
AAAAATAAGGAGATGAGAGACGTCTCTGGTGGCATATAAACAGGATGGCCATCTCTGACTCACAGGCTGTCTTGTA  
AGGTGGCAATGACTTTGAAATTTTATCAAGTCTATCTTTTCTTTTGGCAAGACTATTCTTATACCTTTCCAGTA  
GATGTTAATCTATCTGTTTTTAAATGAACTTCTAGTACAGAAGACATGGTCCCTTAGGAACCTATTGTGAATTA  
GAGGTTTTTCAGAGAAGGACTCTGTTGTTTTATTTGATTGTTCTCTCCATAGGGATGATCAACTTTATATAACA

Fig. 6.78

CGCGTGCATCCATGTAAGTAATCATTTTACATGGCACTTGGAGCAGATTGACAGATATTTAGAGAACATGACCGCCTTAGGG  
AACAAATTAGTTTCAGTCCCTTAAATGTGACTGGTTGGTCTTCTCTCTTCCAGATTGAGATTATAAGTTTCTTTTATTATA  
AATTCATGTTGTGTTGTTGACTTATATTCACCTTACCTTCATATTTTTTGCCTACTCTTTCGATTGCTAGTATTTCCC  
CTGCTCTGTGTTAAATATGCTGGTCTGTGCACTTAATATCCAAATATGTGATTTTTTAAAAAATAAAAAGTGTGAC  
AGGCTCTATGATGTATAGGACATAGGATTAGCATGGATATGACTCAGTATCTCTGGGCTCCAACCATGATTCTGTCCACAG  
CTACTGGTATGACTTTTGGGCGGGTAATTTACTGAGCTCAGAGGCTCTGAGCCTCAGTTTACTACTATCAGATGTGTGG  
CCAGATTTCAGAGCAGCTTTTCCAAATGGGTTTTCATGGGATGTAAACAGATATAACATGAAAAATGGTCCCTTTAA  
AATAGGTGGTGGTGGTTGGGAGGGATGGGAGGCAAGATTAAATGAACCTAAATAGATTCTTTTCTGTAAGCATGTG  
AGTCTTTCACATATTTTGGCTTAAAAAAGAAATGTAAATCTTCAGATCTTAAAGAGGCGTTTCTGTAAGTATAC  
AACTATAGTTCCCTTTTTTCTCTTTTAAATGCTTTAGTGCCGCTTAACCTTTGACCAGGCTCATCTGCAAAGCAGAAG  
TAGCCACTTTCCTTGGTGCCCATCCAGAAATACAGTAAACACCCAGGAGGCTCAGGGCTCTTGACTGTGGATGA  
GTTTATGCAATTCACGTGTACCTTCTGTCATCATGAACCTTTGAGGGCAGGAGCTTCTCTTATTTGCTGTGTAA  
GAGGGCTATCTCTGTCTTATACCTGGAAGATGTGTAGAATGAGTCAAACCTGTCATAGTGAAGGCACCTGCTTGA  
AAGTTTTTCAGCTTCCCTATCAGAAAAATGTTATTATAGAGTGAATTTTTGAAATGAGTGGAACTGTAGTCAAGATGA  
TATCTATGATCAGGAATCTGTGAGTTTCTAAGGTTATAAGATAACATAAGAAATAAATTACTCATAGATAACACAGG  
TAGGTTAAAAAAGGCGAGAGTACAGCTTTGTCAGGTGGTCTTACTGGCTTCTTCTTTGGTCTCGATAAATTTGCCTAT  
TACCTTGATTCTGTCTGATAATGTGAATTTATTAATTTGGAGAGTTTGTCAGATTACCAATATATGAGGAATGGACAA  
AATGCCACGACATTTCTTCATCGTTCACCTTGTACAATGCCACTGTGTACATACAAATCAATTAATTAATTTATGA  
TGAGTTTGTGTTTTCTACTTTGCTGTTCATTACCTGTTGATTTCTTATAAGCTTCTGGAAGCATAAAAATATGTCTTA  
TATACATTTATTTCTCATTGATACCTAGTGTTTTATAATTATAGGAAGAACTCAATAAATGTTGAAAAATAAAGAT  
GACTATAGTGGCTCAGACATTTTTTCCAAATTTAGCATCTGAAGATAGAGATAGTAAATATGATGAGCTTATATGTAGCA  
GAAATTAATGTTTTGAAAGTAGGGGAAAAAACCTTATCATTTACCTACCAAGAAATAGCCATTGTTAAGACTTCAGGTT  
ATTTCTCTCTAGACATATTTCTGCAAAGATAATTTTATGTATAGTTGTAATCATATTGTATATATAATTTTGTGTCC  
TGATTTTTTTCATTTGAACTATGTTATAGAAAGTGTATGATAGTTATGTTGCTCTTTGTATATAGGAAATATTT  
TTACAATAAAATTTTAAATCATAGAAGTCTTAAGTAATATAGTTTTTCACTAACAGAAATTTAATTGTTTTCTGCATG  
GTTTCTTAAACATTTATTTATTTATGTTTTCTTATGAGGTTTTGCTTTCATTATTTATTTATTTATATGCAAG  
AGCTGGAGTAGACATTTTTTAAACAGGAATATTTTATATTTTTCTTTTGAATATTTTCAAAGCATCAACACTTATTG  
GCAAACCTGTTTTCAAAGTATGTGTCAATATTTGCTATATCAACAATGTATGAACATTCAAATTCATTGCAAGTTC  
ACCAGCAAAGAACATTTTTTTACTTTTTTAAATATATGACTGATTTTTAATGGGAAAATGCTTTATTTTGTGTTAATT  
TCTGAGGGATTTTTTGGTCTTATTACTGAGGTCAAATCTTTTCTCATCTTGTGCTTTTGTGTTTGTGTTAATT  
CATTATGTCTTTTTCTATTTATTTTCTTATTGAATGTATGAATGCTTCATTCATCAAAAATGCTATTTCTGCAAGG  
ACTGTATATTCACACACCACCTGCTGCTGATGCCAAGGATAGTGTATGAACAGGGTAAATCACCATCGGCAGGCA  
GCTGGAGTAGCTTGTCTGTGGACTGTTTGAATGCAATAATGAGGAGGGAGCTGAGTTACTTAAACAGTCCCTCTTT  
CTGTTAGTTCATTATTGCAAAGCAAGGCTTGGCGAGTGGGTGTGTGTGGCAGGCTTCTTCTTCTTCTTCTTCTT  
TATTATTAGATAGGTCCAGAAATGTCTGGTACGTTGGGGCTGTGGGCACATTTGGTTTATGTTGCTTTCTTAGATGTTA  
AGTGTGCAACAGCTCGCTATGTTTGTCTCTCACTTGAGCAAAATGATAACAGCTTGTCTGTGACTCCTTAAGAATAA  
TGAGAATCAACCTCATTTTAGGAGAGGGGACAGATTGTGTCTGTACTTTGGCATCTCTTCTGAGAGCTCTTCTGCAGCT  
GGGATTGCTTGAGACACTTCACAGAGTTGAGGACTCATATTGACAGAGAAATGTCCATTGTGCTGAGGAGCTGTGTA  
TCTGTGAGCATCTACTGCGAGAAAGTCTTCTCTAGCATGACTTCACCTCTCAAATCCCTGGATGTAAACAAAGTCAAT  
ATAAGATCTCTGCAGTCTATTTAGTCTCTTTGTCATTTTATCAGATAACTAAATGCTAAATGCCTTCAGATACATATA  
AGCTAAGGGCTCCTTTGAAAACAGGACAGACACTTTTACAACTACATCAAAGCATGCAGATAGTTTTATTTTAAATACT  
TTTTTGTCTTGCATGAAATACTTGAAAATAGTTTCAGATATCGCGCTGCCAAGAAATGTCTTATAGCAAAGAAAT  
AATAGCTCTTTTACCTTAATAGCGAAAGTTTTGTGTAGAAATGATTGAGGATAGAGAGGTTTTTCAAATATGATTT  
TGTTGTGTTTTCTTTTTCTCTTCTCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT  
TCTTTCAATCATTCTTTCTT  
TAATCTTTTTTGGCCATCTTTCTGTGTGAATTTATTTTATTTTAAAAATAGCTTTATTGAGATATCCTTGACATATA  
CAAATTGTATATATTTAAAGGTGACAACTGATGTTTTATTCTATGTATTTATTATGAAATGATTACATTCAGCTAAT  
TAACATATCTATCACTTCTACATAGTTACCATGTGGGTGCTGTGTGTGTGTGTATATACGTATGTGAAATTC  
AACATGAATTTGGATTCTATAATATTGTTAAACACTTTAGAAATAAACTTTCTGTCTACCTCAGTATGTTTGCAC  
ATACATTTCTCCCAAGAGCAAAACCTTCTGTTTGTGCTAGTGGAGGCTTACTTCTTTCGACATTTGCCCTCTCAATT  
TTCTTCTTCACTTCTGCTCTCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT  
TGTCTATGATTATTTTCTTAAAGGTAGGACTAATTTTACATTTCTTATGTTTTCCAGTGTGTTGACTAGAAATTTTTTT  
TATGCAATGTGTTTCTAATAAATGCAAGTGTGTTGATTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT  
TATTTCCAGGTAATTGAAGGACACATGAGTTTAGGTTTATGATTTCATTTTAAACAAATCAAAATTAAGGATTT  
ATAAAATAAAATAGATTGTGATTATATTTTTTGTGTTGCTTAACTCTTAAATAAATAAGTGGTTTCAAAAATTTTC  
TTTTAAAGATATTTTAAACCTCTGATGAGGCAATGCTTAAAAATAAATAAACCATTATAAAGTAGTGGTACTGATGG  
TGATGTTTGAAGTAATATCTTTGAGTTTGGGGATTATGTGATTTTGAAGTCTGCTGATGATACTCTCAAGAGAGTCCATAT  
TTTGAATAGAGAGGACAACCTTGGCCACCTGGAGCAACAGCAAAATCTGATGGTGATACTCTCAAGAGAGTCCATAT  
AAGGCTTAGTAAAGATACATGGAGGAATGTATGATCTGATTTTATTTGTAATAAATCTGAGATTCCAAATGC  
AATACTGAAATGTGAGCTCTTCTTTGACAACAAATGTGTCCAGGAGATGATGAGCTTGTAAACATCAAGGTTATA

Fig. 6.79

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ATTCAAATGACACCATCAAGTTGAAGAAATGTAAAAAGATATACAGACACAATGTTTGGAGGAATCATTGGCCAGTGTTA  
CATTGGAAAAATATGTTGCATAGTGTCTTTCTTAAGCTTATTCCTTGTGTGTGTGTGTT( GTTGTGGAGATAGAGT  
CTCACTATGTTTCCAGGCTGGTCTCAAACCTCTGGAGCTAAGTGATCTTCCACCTTGGATTAAAGGTGTGAGCCACT  
GCACCTGGCCATACTTACTTTTGGAGTAGTTGGTGATAATGATGATGTTGATAGAGAGTAATTAAGTATGAATGAGTTAT  
TTACTTCTTATAACAATATACTATGTTATACTTATGTCCATTTATAAATGGGAAAAATTGAGGCTCATAGAGAAGATGTG  
AGTTGCCCTAGGTTATATAGCTAGTAAGCTGCAGTTAGGATTTGAACCCACTTCTCACTGAGTCCAAAGACCAATATTT  
TGAGATACTGAAAAATTTTAGGATATAATAAATGAGTCATGAATAGTTACTGTGACATATAAAGAGGGATTCTCTTG  
TGTATTCTGAGAAGTTCCAATGAGTTAGTAGTGTGGTCAAGTCGCCTCTTGGTATAATGTTAACATTTCTGGTTAAAC  
CCTGAACCTCTGCAGCCATCAAGAAATATAGCCCAAGAACAAAGGGATCATAGGTAGTCTCCACATAGTGATGTCTGT  
CCTTTGACAAACATCAGTGTCTTCACTTTGACAATGGTACGTTTCTTGTCTTATCATCCCTGGTTAAATCTTTTCT  
AATCTCAGCTGAATGGGTTGAACAATGATAGTCATTTTCATCCCTTGATATGAAGAGATGGTTACTAAACTCAAAGCAA  
GAAAAAGTGTAATATGACACTTCTGAGCCGGGAAGCAAAGTGTAAGTGAAGGACACCATAAAACCCCTGTCTATTAATTGCTGTTG  
TTAAGCCATGATGCTATTTTTCAGTGTATTGTCTATGAGAATGAGAGTACTGTCTAATGAACACTCTCATTGTATATT  
AATAGCTGTATTAAATTGAGCATTATTATATGACCAGGTACAGCCTTAGGGCTAACTGCATGCTTTCTCATTTAATTTT  
TACAATGACCTTATGATGTATATACCATTAATATTCTCATGTCTATAGATTAGCAACCTGAGGCACAGAAAGGGTAAATC  
ACTTTCTAAGATTACACATTTTATTACTGGCTTAATCAGATGATGTCTAAGTATCATGATGACATAGTCTGCGCTATT  
ACAACCTCTCCTGCTTTTTCAGCTTTAAGCATTTCTACATGATTTTACACACGATTTTGTCTCATGTTTACCTAGATG  
ATTTTGAAACTCAATCAAGTTATGGCTACAGGATTATATGAAGGACACCATAAAACCCCTGTCTATTAATTGCTGTTG  
GCTTTGCTTTAGCAGAAGACACATTGGATTGGGCATCAGGGCAAATGGATTCTGGCAAAGATATGCTCTTGGAAACCAC  
TTCTTTGAGCTATTAAGTGAATGAATAATGCTTCACTTGCTTAAAGGCAGGGGCTGGACAAGATAGCATCTTTGACTG  
AATATGAACAGAACACGTATTTCTAATTGTGTTCTTTAGGGGCCAGGGTTGCTGGCATAAGCATGAATGAGCATCTT  
AAAAGGTGTCTATGAAGCATGAAGGAAAGAAATCTCTTGCTCTTGGTATAATGTGAACATCTCTGATTGAACCTGGA  
CTCTGCAGCCAACAAGGGACTACAGCCCAAGAACAAAGGGATCATAAGTAGTCTCCACATAGCAATGCCTCTCCTTTG  
AGAAACATCAGTGTCTTCACTTTGACAGTGCTACATTTCTTTGGTTATCATCCCTAGCTAAAAATAATTTTGAAGG  
GCATAGAAAGAGAGGTATATCTAAGATACTCTCTCTAAGTACCAAGGTTGATTGATGATTCTTTTCAGAAACAAGAA  
ACTTTCTTAAAGTATAATATGTTGATGGCTTTGTTGAGTTAGCAATTTATCACACCACATAGTTCTGTGGGTAATTTAT  
CATTGAATCAGGTTCCCTTTACTCTGTCCCAATATTATAGGTTAATCTGGGACATGTAGTTTCTGAAATACCGACAGTC  
CCATTTGAATATTATTTTGAAGCTGTGAAGCATTTAGCTCCTTTTGATTTTCACTCTTGACTTTTAGTACTCATT  
GTAGACATGAGAAGTATGTGGCATTTGTGTGAGCATCTGTAAAGATTGTAAATGATATTAATTAAGTTGGCTGTGCTTTT  
TCTCCTCACAAATGGATTCTTTTGTAGGCTGGTAATAATCGCGTTTTTGGTAAAAACACCTCATGGAATTTTTTCTCT  
TCTCATAAAATAGCTGTTTACTGTAAATTTGAGATAGCCTCTCAAGTCTGGAACACCTTTCAATTCATCAAAAAGGGAC  
AACCTAATATTCCAAAGAGACTCAATCTTTTAAACACACATACATTTTAGGGCCAGTCAAGAGAAGTGGCCTGTTCTG  
TAGGAAAAACATTTCTTGGCACATTATTATTTAAGTGATTGCAGGAGACCACAGAGGAGAGAAAAGAGACAACAACAA  
CTTCTAGCATGCTTGGGGGATGACTTGCTCTTTCATATTGTGGAACCTTATGTCAAGAGAGAAAACATCTAAAAATG  
AAACGCATTTACTCAGATTCTCTAGGGCAAGGTGCAAGAGCCTGTGCTGTAGGAGCTCAGATCAAAAATTTAAGTT  
GAAACCTGCAGAGCAACTGCCGTCAGCAGAACCGTGGGCTCCTTCTGGTTGATTTTGTGCCATTAGTTAGTTTCCATA  
AATTGGCCTTGGGTACTGATGTTCTTTTGTGCTGTCCATAACTAATAGTGACCGTTGCTGGTAAATGTT  
TCTTCAGTCCAGTGATTATTGGCCTTTCAAAGCATTGACTTCTCCACCAATGTATACAGTCCACCAATGGGATCTGGT  
TTGTTCAACATTCTAGTCAAGTTCCAAGTGGTAGGAATCAAAATTCCTCTAGTTTATGTGTATTATCTCTATAGCTC  
TTCCCTCGAGATGTGGCATGGGATGGAAATGGAGCCTATGTGTGGTATAGGCACTTAAATTTATCAATAGAGAG  
GGATCCATGAGGAGGAGGAAACAAGCCAAAGAGATTGGGCAGGCTAATTTTCTCTAGACAGTTCTCTGTGAT  
TTTACTCCAAATTTCCCACTCTTTCCATAGGAGTAAAGTCTTAAACCTTGAACATATGTTGAATTTAATCCTGAATGG  
TGAGCATCCTTCATTTCTATCCGCTCATTATCAGCCCATACCCCTGCCATTGCCACTACCATATTTTCAAATGTCTT  
TCAACTCTCCAAACCTACTGACCCTAGTTTATCATGCTATTGAAAGGCTCCCACTTTTGTAGAACTTCAGGTATTT  
TAAACATATTTAGAAAGACTCTAAATAAATCGGAGTAGTCTATAGCTAATGTTTGACCAAAAAAAGGTA  
AAAAAGTGTGCTGTGAAATTTGAATATTAATTGTGCCAATTGGAATGGCATTTTTAAAAAGAACTATTTTCATCCATA  
AATGATAAATATATATTTCTTTGTTTAAAAAGTACATTAATGCAAAATTTCCACCCCATGTATTTTGTAGCTTACATA  
TCCATCTAACCTAAATACAGTCATGCATCACTTAATGAGAGGCATACAATCTGAGAAATATATCATTAGGCAATTTTGT  
CATTGTGCAACATTGTAGAGTGTACTTAGATACACCTGGGTGGTATAGCTTAGTATACACCTAGGTTATATGTTATAT  
TCTATTGCTCCTAGACTACAAACCTGTACAGCTTGTACTGCACTGAACCTGTGGGCAATTGTAACCAATGGCAAGC  
ATTTTGTATCTAAGCATATGTAAACACAGAAAAAGCAGTAAAAATCAAAATAAAGAGGAAAAAAGTGACCTCT  
GTATAGGACACTTACCATGAATGAAGCTTGCAGGAGTAGAAGCTGCTCTGAGTGAGTGAGTGGTGAATGAATATAAAGG  
CCCAGAACATTACTATACACTACTATAGACTTTATAAACACTGTACACTTAACGGTACACTAAATTTACAAAAATATCT  
TTTTTACCATTCCGCCAGCAATCCTATTACTGAGTATATACCAAGGAATATAAATCATTCTATTATATCATAAAGA  
CACAGGTAGTCATATGTTTATTGTAGCACTATTCTAATAGCAAAGATATGGAATCAACCTAAATGCCATCGATAATA  
GTAGATTGGATAAATAAAGTGGTACATATACCATGGAATACTATGCAGCCATACAAAGAATGAGACATGTCCTCT  
TTGCGGGAATATAGATGGAGCTGGAAGCCATTATCCTTAAACAACTAATGCAGAAACGAAACCAAACTGCGACTAGAA  
CTCACTTACAAGTGGGAGCTAAATGATGAGAACACATGACTCATAGAGGAGAACAAACAACTGGGGCCGACTAGAA  
GATGGACAGTGGGAAGGGGAGAGGATCAGGAAATAAACCAGGATACCAGGCTAATGCCTGGTGATGAAATAATCT  
GTACACCAAAACCCCATGACATGAGTCTACTTATATAACAACTGCACATGTACCCCTAACTTAAAGTTAAGAAAA

Fig. 6.80

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TTTCTTTCTTCAATAAAAAATTAATAGCTAATTTTTATCTTTAACAATTTTGACTCCTGTAATAACACTACTTAAAACG  
TAAAGCACCATATAGCTGTACAAAAATATTTCTTTCTCTTTCTCTGTATCCTTATTATATAAGCTTCTTATTA  
AAAAATGTCTAGTTATCTCTTTTATTTTTTGAACCTTTTTCTTAACTAAGATACAAATACACATATTAGTCTAGGC  
CTACATAGAGTCAGTATCAACAATATCACTGTCTTTCACTTCACTACCTGTCTTACTGAAGATTTTCAGGGGCAATAA  
CATGCAAGGAGCTGCCATCGTCTCTGATGACCATGCCTTCTTATGGAATACCTCTTGATATGCCCTACCTGAGGCTGTTT  
TACAGTTAACTATTTTTTTAATAAGTAGAAGGACCACACTCTAAAGTAATGATAAAAAAGTATAGTAAACACATAAATTA  
GTAACCATTATTTGTTATTGTTATCATGTATTATGTAGTACACATAAATTGTGTGTGCTCTAATTTATATGAATGACAGC  
ACAGTAGGTTTTTTATGCCAACATTGCTACAAACATATAAGTACTGCTTTCCATTATGACATTACTATGCCATATGGTAT  
ATTAATACTAGGCTATAGGAATTTTTTCACTTTCGTTATAATCTAATGGGACCACTGTAGTATGTGGTCCATTGTTGAC  
CTAAATGTCATTATATGGCAGATGATTATCTTGAATAATCAAGTTATCAGATAGAGAAGGCTTAGGGATGCAGAA  
CCATCTTTACAAGTTTTTGTGCTTTTGAGACAAATCCACCCGACTATTACCAGCTTAGAGACACCTCCTAGCTGCCCT  
CTAGAGATGTATATCATCTTTGATCAGGGACTGGGGACCTAAAAACAGGAACAATAGCATAGCTTTTATGTGCAAT  
GAATTTTCAAATATTAATAAAAAACCTTCAATATTGTTGTTATATTATCTGCACAGTATTAGGAAAAATGAGTAACT  
TATAAGTGAATAATACCTATGCTGCAAAAACTCTTTAATGTTGACTCCAGTTTCAGCAGAATAAATTTGTCTGATG  
ATAGCCCCAGTGTCTACAGAAAAATATACATTTTCTATTACTGGGGTTACAGTGTATGTAGAAGCACTGTGAGAAACCTT  
GACATTTTGGCAGAAAAAGGATTTTTAACAATAAAATCAAGAAAAGGTCATATTAGTAGAAATTTTGGTAGTCAATTTA  
AATGTCTCCACATTATATGGCATCAATAATGCATTTAATATCAGATTGAATTATGGCTGTAACTTTTAGCCTTAGTAG  
TCTGAACATCATTTTATACCTAGCTTAATATCTGGAAATGTTATGTGTGCTTTCTGCTTTATTTAAAATAGAGGAGTGA  
CAAGGGTGATGAATACATTTTATTTCTGTTTTCTCATCCATTTTCTATGCAAAATGAATTTTTTTCAGAAAGTAGGTA  
TGCTTACCTGTATCTTTGCAAAATGCATTTTCAGAAAAAGGTTTGGAAATATTCAATTTAAATCCTATTCTTGTGACCC  
AATGTAACTCACTGCTGTTAAATCTAAAGTGTGTGAGTTCTTACAGCTGAGCAGTAATTCTACTGACATTTTAAATGTC  
ATGTCTCTCTTAGCAGCCTGTTTGCATATTGCAATGCAGGCTACATGTTAGGATTTTTTAAAACATGAGGTGTCTTGG  
AAAATGATTTTGCACAACTTGTCTCTTGGACCACTGTATTTTATAACATTTTAAATGCTTTACTCTTGAATGATCC  
ATTTCACTAAGAGTCAGAAAACTGAGTTTCTGTCTGATGCCATGGTGACATGATGCTGACATTGCTGAGCTAGTTACTTAT  
TCCTTTTACCTAAATGTTTAAATAGAACACACCCAGCCCTGTGTGGGCATGAGAGGGAAATGGGCCCAGAAAGTTGCAGTG  
GTTGCATTACAAAGCCATTAAAGCTGTGGTCACTTTCTCCCTAAAGCATTGTACCTCCCTTAGACAACTTCTCTTTGGG  
GAGTTGCAATATCTAGAACTTCAGAGGAAGGGGTCCAGCTGCAGGGATATGGTTAAAAGTTTTTTCAGAGGACCCACT  
TTGCATGGCAGTGGGCCATTTCTGCTATCACTCAGGCCCAGCTACCCACAAGTTACAGTCTTTGGCAAGAAACAGAA  
GGAAACAGTGGTGGCTCTTGGAGCCACATGCTCAATTTTTGATGGTGCTCTTTGCGCAGTGAATGCCAGCTGCTCCTCA  
ATCAGGTATGCTGCTGTTCTGAGAGTGATTAGGAACAAAAGGGATGATGCAGATGTGTGAGGCTATGGGAAGTGCA  
AATGTATATTTTTGGAGCACTGAATGTAAAGAGATTAGAAAGTTTCTGTTGGAAAGCAGGCTATCGAAGCAGGCAGGC  
AAAATGATTTTGCACCAATACCAACCAAGGGCAAGAAAGTGAAGCTTGGAAATATACTTGTGTTGGGAATAAGAAATTG  
ATAAGACAAATATACTTTTTTAAAAGAAAGATAAGAGAGGTGATGAAAGAAATGTGAAGGTCAGTCTGCTCTATTTC  
TTTGCTACCACCTGAGTCTGTTACCATGGTCTCACTCTTGCATGAAAGCAGTCATCTCTCTACCTAACCCCTTCTGTTT  
ATCTTGCTCCTTGGAGGCTGGCCTCCACATCCTTGAATAACAAGTCTGATTTTGCTCTCTCTGCCCCAACCTGCCA  
ACAGCTTCCCACTCATGAGGAGTGAGATCAAAATGTCTTGCCATGGCTGACATGGCATTCTTGGGCTGGCCCTGACCT  
TCTCTGCTCTTATCTTGCACTCTTACTGTCACTCGCTCCCTTCAGGTCCCTCTGTTTCTTGTGCTCTTTTATAT  
GCCATCCCTCCTCAGGGCCTTTCCACCTTCATTTCTGATTAGAATATTCTTCCCCAGATATCCGTATTACACACTTTC  
TCACTCCATTATCATCTGTTCAATAGCACTTAAAAAGAGAGGTTCTGTGGCCATGCTATCTAAATAGCACACTCACA  
TGCACCCATGACTTTCTCTCACTTACCCTATCTTCTTACAGCACGTAGCACACCTGTCATATTCTATCAAGTTGAA  
CCATATGAAATTGCTTTTGGGTGGATCAAGAACAGCTGAATATTGGCCATTTCAATTTGTTTCAAACTAAAAATATTTA  
TTAATTTGTTTATTATTGTTATTTCTTCTATATGATTGAAACCTGTGGGTCAAAGGTTTGTGTTTGTGTTTGGCA  
ACATCTCCAATGTCTAGAGCACAGCAGGAACCTTAGACAAGTTGTATTGAATTAATGGAAGGAAGAAAGCCATAT  
AACTTGTGTGACAGTAAGCAGTGAACACTTATATGAAAAATGATCTCTCTCCCTTTCTGCTCTGCTGTGTGTGTG  
TGTGAGAGAGAGGGAGAGGAGAGAGGAAGCACTAGAGGACTTAGAAAAAGGTGATGGGATGGGCTTCAGAGGGAAT  
CCAGAAAAATTAAGGATTTTATTGGATCCATGTAAAGTTTCACTGTAAATGTTTCTAGTTGTAGCTAGGGGCTATGTATGC  
ACCTATAATTATATATATTTTTTCCATGTGGTTTTCTGAACTGGGACCAAGTGGGATCAACAAGCTTTGGATAAT  
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ACTAGAGAAAAATAAGTTACTTTTTTACTAACAGTTCTAGAAACATGGCTAATAATCTTACTATCATCCCTGCTACGGATG  
CTTAGAAATAGTGCATGTCTAATCTTGAAGGAAATAAAATCAATTAATGAGTCAAGTAAGTTGAAATGAAAC  
TCCAGGGATAAAACACTTGAATTGATACTGTGGCTGCCTTTGGGACAGTATTATTAGTCTCACTAACAAAGGGCTTGAGA  
TATGAAATGGAAATGAGGTTCTGTGGGTGGAAACAGAGATCTTCACTACAAAGTTGTGACCTTGGAAATGGAAAGGAC  
TGAAAAAAATCATCAGAACAGAGACAAGGAAGCTGTCTTATAGAAAAAGAAATGTCTCTTCAAAAACACATCTCT  
ATGGATTGTACCTCATTTAGGTTTGGGAATTGAATTTGTACTACTTGTGTAGTATGAAAAATCACAACCTGAAAAAT  
TAATAACAGAGAGCCAGATTACTGATACTTCTAAAGCACCTGGCAGAACTGTTACAACTTCTTAGGAGAAAGATAC  
CATTCAACCAAGTTTCACAAGATTCTTAAACATAAATATCTTCTAAAGATTAACCTACAACCTCAAATAAATAAATA  
AGAACAATAATCCCCACAAGTGAGAGTTAGCAACACAAAGAGCAGGATTAGAATAAGACCTAAAAGTGATGGAACAT  
CACATAGACTATGAAAAATGAATATTGAAAAATGATAGAGACATAAATGAATTATAAATATAAGAAAAATAAGGTTAAA  
AAAAGAACACACTTTATAAAGGTGAAAACTAAAGTAATTGAAATTAATAATTTATCATAGGTTAAACAAATTAGATATA  
GCTGGAGAGAAAAATTAGTAGACTGTAATATAATTTGAAGAAATCAACCAGAAGGCACTGAAAAGAAATGATAGAAGAT

Fig. 6.81

[illegible]

Fig. 6.82:



TACTCTCTCTTCATGCGCAATAACTCTAAGATCTGCCCTTTTGAGGCTATTTCCTAGATCTTGTAGGCATGCTTTGATTC  
TTTTTTATTTTGTCTTCTCTGCTGTGATTTTGCAAATAGCCTGTCTTCTAGCTCACTAATTTTTTCTTCTGTCTGGATC  
AATTCTGCTATTAAGAGACTCCAGCTGGGCACAGCACTTTGGGAGGCCAAGGCGGACAGATCACTGAGTTCAGGAGTT  
TGAGACCAGCCTGGCCAAACATGGTGAAACCACGTCTCTACTAAAAATACAAAAATTAGCCAAGTGTGGTGGCGTGTGCC  
TGTAATCCCCAGCTACTTTGGGAGGCTGAGGCAGGAGAATTGCTTGAACCTTGGAGGCAGAGGTGGCAGTGAGCTGAGATC  
ACACACTACCCTCCAGCTCGGCTGGACAGAGTAAGACTGCATCTGAAAAAAAAAAAAAAAAAAGAGAGAGAGAGAGA  
GAGACTCTGATGTATTCTTCAGTATATCAATTGCACTTTTCAACTCCAGAATTTCTATTTGATTCTTGTTAATTATTTT  
AATCTTTTTGTGAAATTTATCTGATATTATTTCTAAATCCTTCTTTGTTATTTATCTTGAATTTCTTTGGGTTGACTCAAA  
ACAGTTATTTTGAATTTCTGTCTGAAAGGTCACATATATCTGTTTTCCAGGTTTGGTTTCTCATGCTTAATTAGATT  
GTTTGTGTAGGTCATGTTTTGTCTGGATGGTCTTAATGCTCGTTGATGTTTGTGAGTGTCTGGACATTGAAGATTTAGGT  
ATTGTCTATCTTCACAGTCTGGGATTCTTCATACCCATTCTTCTTGGGAAGACTTTCCAGGTATTCAAAGTACTTTGGGT  
ATTATGATCTAAGCCATATCTGCATCGGGGGTACCACAAACCTAGTAATGCTGTGGTCTTTCGAGAATCATAGAGGTAC  
TGCCTTTGGTATTTCTTGCAATAGATCCAGAAGAATCATCTGGATTACCAGGGGAGAGATTATGTTCTCTTCGTTACTTT  
CTCCCAAAACAGAAATCTCTCTATCTGTAGCTAACCACTAGGGCTAGGGGTGGGGTGACAGAAGCGTGCCTGTTGC  
ACTGAGACTGCGTTGGGTACAGCTTGAAGCCAGCATAGCACTGGTCTTGTCCAAGCCCTGCTGTAACCACTATCTGGC  
AAGGCCCTAGATACCTGGCCGTACTTAAGGTACTGTTCACTTAAGGCCCAAGGACTCTTCAGTCACTGTGGTGAAT  
CAGCCAAGTCTGAGACTCATCCCTTCTGGCTCAGGGCAGGTCCAGAAATGCCATTCAAGAGTCAAGCCTTGGAACTGGG  
GACCCCAAGAGTCTGCTTGTGTCCTAACCCACCATAGCTGAGCTGGTACCTGATTTTTTGGTCTTCTGTAAGGTGTGAT  
TTTTGCCTAGATAGTTGTTACATTTGGTGTCTCTGTGGGGTGGGGGGACAATCAGTGGGGCCTTCTATTCCACCATCTT  
GCTCCCAAGAGTAAATATTATTAATAAAGATCAGCATCCAATTCAAGAATTAGAGAGTAGGCAAGCAAATATA  
AAGTATAATAAGAAAAATGTGTGTATTATAATATATAAAACAAAACCTGAAAGCCCTGAAAAGACTAATAAATAGGT  
TAACATGGCATGTTTGAGTAAGGAAACCATGGAAACATTACAGCTACTAGTATATTGGAATAATCCCTGTACATCTG  
GAACAAGAGAAGAATGACTTCGGGTTCTGCTTATGTTTTAAATTTGGTTGTTCTAGCCAGCATTTAGGTAAGAAATAAA  
TAAAGGTTAGATAGAAAAGAGAGAAACCTAATTGTTATTAGTAAAGAGACTTCATTGAAAACTATTAGAAAAATAATC  
AAAAGTTTCAGGAAAATTGCTAGATATAAAGTAAACCACCTTTGTGTAACCCAGCAAAAGACAATTAGAAAATTTCTGTAA  
ACTACCTTTGTGTAACCCAGCAAAAGACAATTAGAAAATTCAGTTTAAAGCAGATACCATGAATACAGCAAAAATTTAG  
AAACATGTAGTAAATAATCTAACAAAGGATTTTTTAGAAATCTTTACAAATAAAATTACAAAATTTTAAGGTAAGACACA  
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CTGATTTCAAATGTATACAAAGAGCTAAGCGTCAGTCATAACCAACACAATTTGAAGAAGTCGGGAAGATTAGCCCT  
ACCACATGTCAACAGCTACTGTAAAAGTATAGTGATTAAGACATTGGGATATTGGAGCAGCAATAAAATATACATAG  
GTTTAGAAATAGACTCATGTGTCCCTAAGGATGTATTACAAATCAGTGTGGTAAGGATACAATAAATGATGCTAGGAGA  
TATAATTATTCACATGGGGAAATAAAATAATAAGTACCCTTTCTTACACATATAATAATTAAATCCCATGTGGAATGT  
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CAGGGAAGGATTTCTTAAGACTAAAACCCATTTACGCCCTAGTGTTCCATTATTGGAATGCTAAGCATGTGAGAGTTATT  
TATTATCTACTGCTCAAGATCATCGCCAAGGCTGATTGCAAAAATTCAAAATTTGCAACCTCAGGCATAAGTGGG  
TTAAAAGACAACTATAAAGAAAAATAATAAGGTTGAATATATTAAAAACAACATTTTGAATAGCAATAACACCA  
ACAACATTTTAAAAAACTTCAGAATAGGAGATATTTATAGTATATACAACCAACAAAATAATATGCAATTTTGTATG  
AAGGAATCTTTCAAATAAATATTTAAAAATTCATCCAATGGAAAAATAGGTGAAAGATATGAACAAACAATCGACAGA  
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AGTCACTTTTGACTTTACTTTAGTAAAGTTAAACATTTGCATATCTTGAAGGAGGAATTCACCTTCTAGGCATATATCTAG  
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TAGTAGATGAAATGTATAAATCCATGAGATACATTAACATGGGTAATGTTAATAAATTTAATAAACCAACATAATAGCA  
ACATAAATTTAAGCAAAAAACAAAAACAATTCGAGAGGGATTAATATTATTTGATGCCATTTCTAGGAAGTTTTAGGAC  
ATTCAAAAACAATATTTTATGTTTTTAAAGAATACATCCATAGGCAGTAAATAATTAAGAGGGTGGAAATCCTAAAC  
ACCATTTGTAGGATTTTCTGTGTAAGGGAGGTAGGGAAGGAGGTAAATGGGCTCAGAGAGGGAAGGATACACTGGGCTT  
TCAAATCTAACGGAATTTGTTTTGTTTTTCCCCAACATTTTATTGTAATAATTAAGATTTCATAGGAAGTTGCAAAA  
ATTGTACAGATATGCTCTGTGTACCATTACCCAGGTTTTCCCCAATGATTATGCTTGCATTACTAGTTATTATAGT  
CATGAATTTGACATTGATCTCATGTGTTTGTGTAGCTCTATGTCAATTTTGTATGCTGATAGTTTGTGTAATCACCAC  
TTCAATCAAGATTTCAGAACAGCCCCAATCACTACAATGATCTCCCTTGTGCTATGCTTTTTATAGTCACAGCCACATCC  
TTTGCCACCATATCTAATCCCTGGTAACCACCTAATATGTTCTTCATCTCTATAAAATATTGTCTTTTTGAGACTGTTA  
TATAAATTAACCATATAGTGTGACTTTTTGAAATTGGCTCTTTTTCTACACAGCATAATGTCTTTGATCCTTGAGATC  
TCCAAGCTGTTGTATGAATCTGTAATCCATCTCTTTTATTGCTGAGTAGTATTCCATGATATGGATGTAACAGTTT  
TAAACTATTACCTATTGTGGGACATTTTAGTCTTTTTCAATTTTTGGCTACTACAAACAACTCATATAAGTTTTGCTG  
CGATCATAAATCTTTTTCTCTGGGATAAATGCTTCAGAGTGAATTATGGGCTCATATGGTAAATGCATATTTAGTTTTT  
AAAGAAAATTAAGCTATTTTCCAGAGTTTTCAAACATTTTTCCAGAGTTGCTGTACCATTATTAGTGTACAGGCATATG  
TTGTTGTTCCCTTAATGACATGTGAGAGATCCAGTTCTCTCCATCTTTGTAAGCATTGGTATTGTCTACTGTATTTAT  
TTAGCAGTTCAAAGAGGTGTGTAGTGATGTCTTATCATAGTCTTAATTGTCATTTCTCTGATGGATAATGTACTAGTT

Fig. 6.83

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TTCTATTGATGCTGTAACAAATAACTGTAAACTTAGTGGCTTAAACCAACATAAACCTTACGATTTTACAGTTCTGTAGG  
TCAGAAGTCTAACACAGTTTTTACCAGACTGAAATCAAAGTGTGGTATTCCTTTCTGCAGGTTGTAGGGAGAATTTG  
TTTCTCATCTTGTCTAACTCCTAGGCTCTACATATTCCTGGCTCATGGCTCCCTTCTCTGTCTTCAAATCCAG  
CATTGTGGGTTTCAGTCTCATATCATATCATTCTTACCTCTTCTGCTGGGTCTTCCACTTTTTCAGAACCCCTGTGAT  
TAAAGTAGCCCCAACCAAAATAATCTGAAATAATGGCTGTATTTAAGGTGAGCTAATTGGCAATCTTAATCCATCTGC  
AACCACAGCCCCCTTGGCATGCCAGAATAACTGGTCTGAGGATTGGGTGTAGACATTTTGGGAGCCATTGTTCTG  
CCTATCATAGGTAGATATGTTGAACATCTTTTCATGTGCTTATTTGCCATCCATATGTCTTCTCAGTAAATGTTCTAT  
GTCTTTTGGCATTTCCTAAATTTGGATTGTTTGTGTTTATTAGTATTGAGTTTTGAGGGTTTAAATTTTTTGTGTAGA  
TATAAGTCTCTATAATATTTGTTTACAAATATTTCTTTCAGTCTATAGCTTGTCTTTTCAATCCCTTAGCAGGGGC  
CATTCACAAAACAAAAGTTTTTAATTTTGATGAATGTCATTTCTTCTCTGTCTTCTAGAGTTTTATAGTTTTATATT  
TTCTGTATAAGAACTCATCACCAGCACTAAGTCTTAACTTCTTCTCTGTCTTCTAGAGTTTTATAGTTTTATATT  
TAATTTTACCACCTATTTTCGAGTAATTTTGTATAAATAGTGAGGTGCAAGTTGAGATTTATTTATCTATTTAATTTG  
TCTGTGAATGTCTGTATGCATTGCTCCAGCACCCTTGTCTGAAAAGACTATCCTTTCTCTACAGAACTGCTTTTCCACT  
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CAATAACGTAATAAGGAGGCTTTCAGCCCTCAAACCTGTAATAATTAAGAAAGTGGGTAATGCTATAGTGAGATGTT  
GATCACAGTGGATTGGAGACTAATAGCTGTATGATGATGATAAGGTTACTGGCTCTCTGGGCTTTCAGTTTTATTTTTT  
TTTTGTGAACCTGAGAGGGCTGAACCTAGGAGACCCCTGGAGTCTTTTGACATTTGCATGCTCACATAGTATGTGATGCTT  
CTCATTTGTGAGTTTATAGATAGAGATGTGGAGCGGATCTAGGCTGTCTTCTGTTTACAGCCTAAAGATGAGACAC  
TGTTTTATATTTCCAGGTAGAGGCTGCCTAATTAACCTACAGGTTTATAGTGGTTGGAGCAAGCCCTTTTCAAACCTA  
CTTCGGGAGTTTATATACCTGTAATAATCATTATACTATAGAAGATATCATTGTAGTTTCTTATAAATACCTCAC  
CACTTCTTCTGGAATTTCAATATGGGGTCACTATATGATGCTTCTTGGGATCTGATTTACAATTTATAAATAAGTCTGAA  
ATATAAATAAGAAATACAATGTATAAGAGTCTTAGAGTTTATGTCAGCAGAAATCCAAATAGGAGTTTAAACCTCTAA  
GGAGCACTTACAGTCTTCTTAGAAATAAACACATTGTAAATGATTATGAGAAATATTTATCATACACATTTTAATTG  
ATAATTTAGCTGTTATATTTAATTAGAAAAGAGTTTCTGATTTTCTTTATGGCTATGACTTTAAGCCTGTTATCTAGA  
ACACAGTTTATATTTTCTGGTTTCATCATGACAGAAGGCAATTTTGAAGAAGGCTAGAGCAAGAAATAGCAACAGGACG  
TCAATTTCTGCTTCTTGTGTTTACTTCTTCTGCTAGTAGCAGAATTTTTTCTATCAGTAATTTTGGCATCAATAAAT  
AATAAAGGATTACAACTTATCCATCATATGCCAACAAATTTGATAACTTACATGAAATGTACAAATTTTGGAAAGA  
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TTTTAAATTTCCCAAAAGAAAGTCCAGGCCCAATGGCTTTACTCGTGCATTCTAACAAAATTTAAATAAGAATG  
ACCACAAATCCTTCAAGTCTCTTCCAGAAAGAGGAAATTTGGAATTTTCAATTCATTGTTGGTGGTAAATAAATAG  
CGCAGTCTCTTTGGAAGCTATTTGGCAGTTTCTGAAAACATTAATTTCTAGAGCTGCATATGACCCAGCAGTTTTGT  
CTCCCTAGTATATATCCAAGAGAAATACCATATATCTACAAGAAACTTTTACCAAAATGATCATAGTAGCATTATTTA  
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AGGTATTATAGAAATAAAGAAATAAAGTATTGATATATGCTACAACATGGATGAACCTTGAATAATATTATGCTTA  
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AAGTTGATTAGTGTCTTCCGACAGCTGGGAGGTTTGGGACAAGAGGGAGTGATTGTTAATGGACCTGTTGTTTTAAATG  
TTATTGATTTGATTGTGTTGATGGTTGCATAACTTTGAATATTGTAGAAACGACTGAATTGTACACTTCAAATGGTATG  
TGAATTATATCTCAAGAAACTGTTTTTAAAGTAATGTGAATATGTATGTTGAGATAGCATGGTATGTAGAAGTTAT  
GCAGGGGAGTGGTTAAGATCATCAACTTGGGTGAGAGTCCCTAAGGTCAACCTCACCATAACAGTTGTGGGAACCTTACA  
GCTTTCTTAATTTCTCTGTGTCTCAGTTTCTTCACTGTAAGCATAATAATAGTGCCTTTATCATGGTGTCTATCTTTAA  
CATTAATGAGCTAATATTTGAAAAGCATTAAACAGTATGTGGCACAACATAAGCACTATATAAGTGTGTTGAGAAAT  
AAATAAATATAGGAAGACTACAATATTTGTTTCTTGGAAATACCTTTTATTTCAAGAGTTTGATCTTCTTATCTAT  
TATGTTAAATTTCCCTTTGTAAAAAAGAAATGTTAGTTACAGTAGATGGCAGTTATTTTGTAAATATCTTTAA  
TTTGCTAAAGGAACAGTTGGCACTTCTATATTGATGCTCAAGTAATTTTAAAGTATTTTGTAAATGTACTTTTCCA  
TGAAATCTTAAATTAGAGAACCACAGTTCTATAACTATGTCTTGTTCAGTGGCCTTTGGAACCAGATGGCTCAAAAAA  
TTAATAACCATTCAAGTTTTAACATTAGAAGAGTATTACAGATATTACAGTACCTAGAAAAAATCTTATCATATAGGAG  
ATGTTAATGAATGTGCATTGGAATGAATGACAAGATGGATCATAAGTGTGTGACTTGTCTCAGTGTGTGTGTGTG  
TGTATGTGTGTGTGTGTGACAACGACCTCTTCTACTGGTATCTTAAAGTCTGTATAGTTATATCTGATATGCTTGA  
GTTTGCATGTTTCTGCTAACCTTATTCCCATGAGATTTCACTTTGAGGTATTTATATGGATTCTAATCTTGCAGCTAAG  
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CTATTAGTAGTATGGCTGCTGCTATGTTTGCATGTGTTCACTATTTTATTTTCAATTTCTATTACATTTTTATTTTC  
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CTTTATGTTTGTGAACAGTTAGAACCACACTGACTGCTATGAAAATGCTTAGTAATAATTATGCTTCTGGATCCTTG  
TGAAATAACCTGTTTACTCAATTTAGTACACAAGTTATTGAGAAACATCTATAGCCTTTTTCATGTCAGTGTGGACA  
GTAGTTCAGTGCATAGGATCTGAGGCGCTGTCAATCTTTCTTGATGTCTCAAAAACATACCATTGATTTTGTCTTCCA  
AGTCTAGATTTACCAACATGTGAGAGACTGATGCTGAGTGCAGGAGAAATATTACTGATCATAATCCAAGAAGAACT  
GACCAGAGAATTAAGCATTTAAAGTTGCAAGAAGTAGTTTATCTTGAAGTCAAAAAGGCTTAGTATAACCTACTTG  
CACCCCTGTAAGCATCTAAATATTGTCTTAAGAGAACAGAATAATGATAACCACAGTATTGCTTAATATCTGCTG

Fig. 6.84



[illegible]

Fig. 6.85

[illegible]

Fig. 6.86.

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CCACAAGGCCCATATAAATCATATGAAATGTTTACTTTTATTAGTCATCAGAGAGATATAAATTTAAACCTCATTGAGA  
TACCATAATACATTTATGAGAATGGCTAAATGAAAAAGACTAATATGCCATGTATTAGCAATATAGATATGGAGCA  
ATTATAACTCTGGTAATGGAAATGGCATACCAACTCGGAAAACGTTTCAGTATCCCTTAAAGAGTTGAATGTACATCTA  
CCCTATGATCTATAAATTTCTATTCTTAAATTTAGTATCATCTGGATAACAAATTAGCACAATGTTAATGGCTTATAA  
CAAGAATAAACACGTATCATTTCAATTTCTGGGGAATCAGTAATTCAGATGAGGGTTTAGGTGGTTTGGACTCAGAGTC  
TTTCATGAGATTTTCAGGTAATATGTTGGCCAGGTCTCCAGTCCCTGAAAGCTTGACTGGGCTGGAGGCTCTGCTTCC  
AATACAGGTTACTCATATGACTAACAATTTAGGATGACAGTTGGCCAGAGACCTCAGTTCTTGGCATGTGGATCCCA  
TATAGTGTGCGTGAGTGTCTCTCTGGAAGCTGACGTGCCCTGGAGTGAATGATTCAATAGAGAGCAAGGTGGAAGCTT  
TTATGACCTCACTTCAAAAGTCATACTCCATAGTTTGTGAAATATCCTATTAAATTCATAAATTAGTCTTATTGAGTG  
TATGATGTATGTATGTGCGGGGAGAAGGTGTGGCTATGCAAGAGCATTGAGATAAGGAAGCAAGGACTATTGCATGCT  
GTTTTTGGAGTCTGGCTACCACAGGTATTTATCCAGGGAAATGGAATGAAAGTCCCTCAAAACCTTGTACAAGAAAT  
GTTTCATAGCAGCTTTATTTATAATAGCCAACTAGGTAACAGCCCGGATGTTTCAGGAGTCTGGATAAACTGTA  
GTATATTCACACATTGGAAATGCCTCAGTGATAAAGAGAACTAATGAATGCAATAAAGTTAATTAATTTAGAAA  
TATTATCTGAGTGAAAGAGAAAAGATAATATATACCATATTATTCGACTTGTATGCAATCTTAGAACAGGCAGAAC  
TGTAGGTGATAGAAATCTTATGTGTCTTCTCACAGGATAGTAGGCAGATTACTGGGAGTGGGTAAAAGGAAA  
CTTTTGGGGTAATGGAATATTCCATCAATTTATCAAAATCAACTCAACAGTACACTTATGTTCTGAAGATTATATGT  
AAATTTATACCTGATAAAAAATACAAGGCATAATCCAAGGAACATGAAAGACAAATAAGCCATATAATTGATAAGAGAG  
AAATTAATACAGAAGGGGAAAATATTAAAGGAGAAATAAGGTATCATATATTTTCAAATAAGTAAACACATGGTAAT  
GTAGATAATTTTAATAATATCTTATTTTATATTTATAATCTCCACTTCTGGAATAATTGTTGATTATTTTATTTTGA  
TGTACTTCCCAGTCTTTTTTTCATGCATTTAAAAAATAAATAAGAACGTTTGGTATTGAGATTGTAATTTGATTGTG  
TTGTGTGTGTAAATGTGTGTGTGTATGTGTGGTTGGCCTTACAGTATAAACAGTCTCTCAAAATTATTAAGACTATTT  
TTAAGCATCACTTTCAATTGTTTATATTCATTGTAAGACTATTTATAATTTATGTAACCGTTCTGTTACTGATAGACCT  
TTAGGTTGTTTCTCATTATTTAAATAATGCAGTGGAGTTGTTTCATAAAGGGTGATCTTTAGTGTGAGGATTATTTCT  
TGGGCTAGGGTTTCCAAAACGTTCTAGATCAAAGAATATGTTTCACATTTTCATATTGCTTTCTACAGGGTTTAAATTA  
TTATACACATTTACAGTAGTCTATTAAAGGACTTATTTAATAGGTAAGTGAAGTAGGTATTTCACTATGCTTTGATA  
AGCATAGTGAACACTTTGTTTCATGTGTTTATTAACCATTTGTAATTGAGAAAAATGGCTGAATTGAGCCTTAAAGAATGA  
ATAGCATTTTAAATATCAATGGAAGGCAAGATGGGGAAGGTTTTTTCTGCAATGTTTCATGGCATGGCAACAAAGTCA  
TTCCATGTCAACCTCATGGAATTTGAAGTCATTTAGTATAAAGCTTAGAGCAGTTGTTCTCAGTCTTGGCTGCAACAAT  
AGGATCACCTGAGGGAGAATGTAAAAATCTCCAATATCTAGGCCTTACTAGACCAATAAAATCAGGATAGTTGGGTGAA  
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ACCTTTTTCATGCACTCATGCACTGTGCACTTCTCCCAACCACTAGCACCTGATCTTGTGGACAGGCTGCAAGCA  
AACCGCCCCCACTGCCACCCACAAGCCTGGAGACCTGGGAGTTTTTTCTCCACACCCCAAGCATAGGCCTGAAGCAA  
TGATTGCTGATGATATGATATAAGTAATCCAGCTTCTCTTTCTTAATCAAGATAATTTGACATGTGAACATAG  
TCCATTCAAGTAGCCAATATGCAAACTTTGCCTTGTATCTAGGACAAGATGAGCTTGTGCCAGAACATAAATCTGTAT  
GCTGCTTCTCTTCAAAAGAAATGTTTCTATGAAAGAAAGGTCAAGTGAAGTAAATAGTGGACTTACTGACTTAGCTGCA  
AGCATCTTATTTTCATCATGGACAGTGACACAGACCAAGGATCTGCAAAACCACTTTGCGTGCTTGCAGCAGTGAAC  
TCATTTTAAAAATATCCTTTCTTGGCATATCTAAGGTCCCGGCTTAGTTTAGATGCCCATTAGTTTGGAGTTTGA  
ACCACTGGTTTGCATTTCAAAACGTAACCTCAAGAACCATGCCAATATTTCAATGGAGATGGTAGCTTCTCAGAATTTG  
TAACTGAAATTTCTTTTGTGAGATATGTGTTATTTACTGTAGACTTCATAGCTCATAGCTCATAAATTTATATTT  
GTAAGGTAACCTTAGGTGTATCCACNTATCTGACGTGGAGCAAGTATTGAAAACCTTTCTGGTGTCTCAGTTTCTCACTT  
CTTGAATGAGGAAAATGAACTACATTATTTCTAAGGTCTCTTTCAGTCTTAAATGTTATGTTCAACAAGAGCTACTAG  
ATTATGTGAGTGAACAAACATAAAACAGATTATTCAGTAGCAATTGTCACTTCTCAAAACAAATTGACAAAAGTCAT  
ACATCTATTGTAAACAATTTCTCAGGAAGCTAACCTTTGCCTGTTTTCTAAGGATATGTTTACTGCTTTTAACTT  
TGCTTTGGAAATGGGTAAACCATTAATTAGGTTGATAAGGTCAACATGCAGGAGCTTTGGAAAGAGATTGGATAATATT  
TGTGAGTGTGTATATTGCTTAGACATGCTTTTTTGTCAAGTTTATTGTACTTTAATGATTAGCTAGAAAATAAAGGCT  
GCTGTATATGCTATTTTATTAATGCTGTGTATGTTGTTTTTTCGAAGGTAATTTGAAAATACAGAGAAAAATATAAT  
TATTTGAGGGTGTCTTTAGAAGAGGTGGATATGTTTATAAAATTAATAGTAATTTAATAACACAATCTTCTCAAGAC  
AGAATTCACCAGTATACATGGTTTCATAGAGAGGGTTTGTGGCACTGAATGAGTTTTATTTTCCCTGATTTTCAAGGAGC  
ATGTAAATGCATTTTGGTGTGATCTTGTGGATCAAGAAAGATGATTTTAAACATATGTAATCATTTCTGCTCATCAGTT  
TGTCACATCTTGTCCCAACCAACCTAAATAGTTCAATATTTTTTAGACTCTTTTGTGCTCAACTTATCTAGGAAG  
AAATGTGGACTTTCACAGTCATATCAGACTTTCCATTGAAATGATTCTCAATTCATTCTCTTCTGGGCTCTTACAC  
TTTTGAATCCTCATAAAAACATGGGGAATTAGGACATCTGTGTGGCATTTTTAAATTTTATTTTCTTTTCTTAAAGT  
GAGGTATAATACACAGATAGGAAAGTATATTGATCTTAAGTATACAACCAATGAATTTTACATATGTGTACACTAGT  
ATAACTACCACTTGAACCAAGATATAAAGCAAGATTTAAAAATCTCTCTCATCCCTTCCAGTTAATTTTCTCCAT  
TTAGAAGTTACCACCATTTTGTACTTCAAGCACCATAACTTGATTTTGGCTGTTCTTGTCTTCTATAGAAATGGAATGAT  
ACCTTATATTGCTTTCTTTTGTCTCAATATTGTGTTTGTGAGATTGATGTTTCTTGCCTATGGTATAAATAAAT  
CATTAGCTTCAATTTTACTGTGATGTAATACTCTATGGAGATTTCATTTTACTCTTGTATAGATCTTTATTTTCATTTT  
CAGTTATGAATGCTGTTGTGATTTTGTATGAATACATCTACTCATTTTATTTAGTTGACATAGCTAGAGTTAACAT

Fig. 6.82

[illegible]

Fig. 6.88:

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GCCAGCAACAATAACCAAGCAATAGGAAATAGCCCCCTGCTTCGCTTCTGTCTGCCAGCTGTCTCACTAGAGCACATG  
AAACTGGTGGAAATCTAATATGTAATTTGAACTCTTATCGCAAAGTAGTCTGATAATTTGTAGTTTTTGCCTTTCCAGACT  
CCACAATACAGGTGAGCTCTCTGGAAGAGGGAATAATTAAGTTGAGGACCAATTCATCATATATACTAGACAAAAGA  
TGGATGACATGGATAAGGAAATCTATAGAGAAGAGAAGCACTGAGAACATGAACATTCAGGGGACAATTGAGGAGACT  
AAGGATGAATGGTCACGGGGTCAAGGGAAGAAGCAGGAAAATGTAGCATTTATGGCAACCAAGAGAAGCAAAAGTTTA  
GGAAGAAGGAAGTGGATAATAATGGGAAAATGCTGTAGTGCAGCAGTTATCAATTTTTGTAGTATGACATCTTTTCAGT  
AACAAAAATCTGTGTACCCCTAGTATTAGGCAAGACTTTGTTACAGAAAATCAACTTAAAGTCATTATGCAAAAAAT  
GAATTTATTGACACATACAACCTTTAAGTGCAGTGGGGACAGATCTAGCATTAGCTGCTTAAAGTGGTCAATCGGGTTAA  
ACCTTTCTCTCTCCCTCTTTTGTCTTGTCTGCTCCCTCTGTATTGGCGTCAATTGTTAGGCAGGCTTTTTCCATGAAA  
CTAGGAAAACTGAACCTCTGGAACCAGACCTACATATTGCTTACAACCTCTGATCCCAAGAGAAGAACTTTCTCTC  
TTCTAGTATCCCCAGGTCAAATCTTAGGGAAGAGATTGATTGGCTGCTTAGCTCAGGTGCCTTTTCACTGCACCAATC  
ACTTGCAGGCTGTAAGCATAGAGTGTCCAATTGGCTAAATCTGGGTTACATGCCCCACTCTGCTGGTGGAGGGAATCTT  
GTCAGTCAACCCAAAACATGGAAGGATTTTTCCATGAGAATCACAGAAAGTTATGATTTTTCTATTATAAAAAAGAGA  
AAATAGAAAAATGGATCTAAGCAGGCAAAATTTACCAGTCTGTGACAGTTCACATAAGAATAATTAATTTAGATG  
TGTTACTTGAGAAAAAAATATATATAATGACAAAGAGCTACTATGAATTTAGTGACACTTAAATAAATTTCTAAA  
ATTCATGATAACAGCTGCTATGTACATTTTAAATATACATAATGCAACGATATCTTCTTTTGCAAGTAATGCTTG  
GGGAGCTTCTAGATTATGAGCCTCTTTCAGTCACTCTGAAGCCTCCAAAACACAGATTTCTTGCCTTGAAATTAAGTT  
AATCATGGATTCAAAAAGTAGCCTATGCACAATTTAGGTGTTCTTACATAAGACATGTCTCAGGAAATATTTTAAGAC  
ATTTTCATTAGTATATAGAGTACCAGTAAATACGTACCTTCAGGTGGGTGATTTGTACCACCAATAGCTAATTT  
AAAAACCAAAATAAACCAAGAAATGAGGGTAGGGTAGGGAAGCACACAGTTTCAAGTAACATCTTTTAAAT  
TTTTTCTAGTTCTCTCTTTTCTGTTTTCTTTTAAATATGCATATGATGCATAGACAACAAATATGGAACATATAA  
TGAGAAAAATATATAAAATGTTATTATATATAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATA  
TAAACATATATACAAATAAACATTTGTATATATACATATATATCTATATATATATTTGTATATACATATAT  
ATATCCCTACCCACCCCCCAAGATTCTTAAAGCAAGTAGCTTTCTTCTGAGGACAGCTTAGAGACCTGTGCCATAT  
GAAATGGACTCTGGACCCGTCCCCAGTGCCTGTGAAGGGTTGCTCTGTACATTAGCTCCCCAATCTGCAAAATGGATG  
TTGCTTGACCTTTTCTTCTCGCTCTCTGGGAACCTGGTTAAAGTCCACAAACTCCTTCAACCTCCAGGGACAGAAA  
TGGCATCTACGAGCTAATGTGAGGGTCCCTGGGTGTCAGAGAAATGTATTAGGAGCTGTGTTTCCGGAATGACGGTTTCG  
TTCTTGGTCTACTGAGCGTCACCGAGCTCGGAGACACCTCTGCTCATTTACGAGAGTGACAGGGCTCAATGATTCCAG  
CGCCAGGTGGAGAGAAAGCGGCTGAGGGGCTTGGCGCTCTGTCGCGCCCTCAGTCCGCCCCAGTCCCATGCAGG  
CTCAGCGCCAGGCTCTCCGCCCCCGCAGCTGTGGCTGTGCGCTCTCAGCTTGGGCCATTGTCAGTGGCCTGGCCTG  
CCTAGAAAGAGCATCCACCATTAGGATGGAACGCAGCTGTTAGAAATAGAAGCACCAGTGAACCTGTTCTTGGTCC  
CTGAGGCCACCTGGTCACTCTCCCTACATTGTAGCTACCAGAACTACCTGGGCTGTAATCTAATTTCTGAAAAA  
AAAAAAAATTAGGAAACCCCTATAAAATAATACCGTGCCATGAGTATTTACATAAACAGTGAGGTTGAAATAGGTTT  
TAAACAGTTAATTAACATGGTTTCTTAGACATCAAAGAGCTTCCAGGTTAAAAAATTGGGGAGGGGGGTGTATCCTT  
TTTTACTTCAGAGATATTTTTGTTTCTTTTGGGAAGCCTTTACTATCTTTTGCTAAATAAGCAAGGAGTTGGTCTG  
GAATAATTTAATTCGCTTCTGGTGAATGCAGCTTTATTTCTTCTTAAAGGATGAATGCATCTATGTATTGATT  
ACTTTGCTGTTTCAAAAGTTAAATTTGATTTTATAATTTAATGAGGCTGCTTTCTTTATTTTAGCATGTGTTTAAAA  
GTTGTTTTTTTAAAAAATAAATGAGACATCTTTTTTTGAGGTAAATCAAAAAATCAAAAGCTTGAGGATTTATA  
TATAATTTTTTCAATTTCTAGTTTATCTTTTGCCAACATTAATGGATTTTTTAAAAACCTGGCAATTACTAAAAATGT  
CACAAATAGCAGTTTTTACTAAAGCTTTGCTTTTATTTTGAGTTAATATATTAGATTTAGTACATTTGTTAAGTAGTTAA  
GGAACCTGGCAGTATTATTTTTTTTCCAAATTTAGAATCTACATTGACATTTGTAGATTCTAAGTTAGTATGGATCTCAA  
AATTTGTGCTTTCAATTCACATTGAGGGAATAAGACTGAGCTGTGTATTTTCTTTTCAATGTATTTTGCC  
TTATAGCTGCATAAATAGAAAAGTAATTACTTAAAAATAAGTAATTTACTTACTTAGCAAGGTTTCTGATGGTAGCTTT  
TATTAAATCTCAACTAAGATAATTATTGCAGAGAAATTTCCCACTTAAAGCAAACTCTTATAGGTTCAAGATAATT  
AAAAAACACAACCAATTTATATCTTGCCTTCATGATCTTTCTGTCTCCCTCCTTCCCTCTCCCTCTCTTCTCCCTCTC  
CTCTTTCTCCCTCTTTTCTCTCTCCCTCTCCCTCCCTCCGCTCTCTTTCTCATCTCTGCGCAGCTAAGGTGTA  
TAACCTTCTTAACCTTATCTCAGAAGATGAATATCTAGCCCAACTAGGAAAAAATCCCACTAGAAATGATGTTGCAA  
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CCATACAACAAATAGGCCCTTTGCTGGATTGAAGTGTGCTAAAATCTAGTGTGTTTGTGTTTTTAGATGAATGGCAGAA  
TGCCAACAGGAAGCTTTTCCAAATCTCCATTGTTATCCAGAGAGAAAAGAAATGACATGAACATGTTTTTAAACATTTT  
AACAGCATAATTTCTTTGCTCTGGAACCGGAAGCTACGTATCATTAGGAATTTCTGATTAAATTTCTTAAGTAT  
AAGGGTTCTAGTGCTATACAGGAGCAACCCAGGCGACCTGTCTAAGGGCTTGTGGAATGTTATTGACTGTACATAGAGG  
AAAAGAAAAATACTTTCTTGGGGACAGCAGGATTTCTAAGGGCTTGTGGAATGTTATTGACTGTACATAGAGG  
TTCCAGCACAGATTTCTCTTCCAGCTCAGTGAATAATAGAGTCCAGGCGCCTGGCTTTAAATCAGTTGATAGAAAGG  
CAAAGATCTCAGAATCTGGTTTTAATTTATCAGCTTTGAGTTGCTTTTCTTCTTCCCTTCCCTTCTGCTGTGCTGCT  
CGCTAAGCAAGTGGAGCAGGTTTTCTGTAGATCCCATCTGTCTTGGCGGCACTCTGCACTTGTGCTGCTGCTGCTGCT  
CCTTGTGGAACCTCTGTCATGCTGGATAGTGTCCGTCAGGTCTAGGATAACGGTTCTCAAAGGCGACCTGGTGCCA  
TTGCTAGTCCACAGATAGACTGCACTTTGATGCATTAATGATGTTTAAATACCAGTGACTATATTTTACTTTGTTAT  
ACTGATCATTGTTGCTGCTTATAAGATAACATGGGAGACAGGATTCTGAGGCTGGGTGCTGGGGGAAGCCATTTAAAA  
CTGGCAGCACTGGCGGGAAGCATACCTGGTGTGCCAGGTTGGAGCTTGGTGCCTTTTCTGCCTTTTTCATGACAC

Fig. 6.89:

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CTCTAAGGGGGAGCCATTGTCCTGCTATTCTCTTTGGCTTTCTTTTAAAGGGGCTGTGCACCCATAGATTTGCTGTAGC  
CAAACTTACAAGACCGTAACCTACACAGTTCAACCTACATACACCTGTGATATCTCTGAACTCTTCTCTACTCCTCT  
CTTCCCTGCTCACTTGGCCCCAGCTGTGCTTTCAGACACACCAAGGTACTTCCAGACACTTACAGGCTTCACTCCTGCCC  
CTCCATTAAAGCTGTACTCAAATGTCGTCTTTTCAAAGAATCTCTTTCTGGGCATGCTATCTAAAATGCAATCCCTAC  
TGCTAATACACTCTATTTTGTCTTTGCACATATCACCATCTCACAGAATGTATTTTACTCACTAATCACTTACACATT  
TTACTTATATTTACTTATTAACCTTAGTATCTGTCTCTCCCTCTGTAGAATATAAGGTAAATGAATATAGAGGTTTCTT  
TTTGTTCACCTGCTGATTTTGCATGCATGGAACAATGCCTGTCACTTAATAGGTGCTTAATAAGTATCTGAAAAGAACAA  
ATGAACAGTTAGAAGCCGATACATTTATTTCTTAATCTGGTTTATACCCACAGCAGCAAAATGCTATAATGACTTGC  
CCCATTAAAGTTTGGGTCAAATTCAGTACTACTGACTTATTAATGAAGTCATTTGGAATGAGTAAGAGTCTTAGGTCTA  
TGTCGATCACACTGAAATAAGAGCAGACCATTTGATTGATCAATACTAAATGTGATTGTTCTATAACTTTCTGAACACT  
TCATGTAACAGCTCTGTCTAAATCTCAGAATCTCATTTTATACCTCACTCACTGAATATTTTGAATATTGAAGGAGTTT  
ATTGGGGAGAGAATGTTTACTATATCTCAATCACTTCTTATATATGATCTATTTTAACTTTATAAAAACAGTGTAATA  
ATACATTATTCCTATTTGAACTGAAATCTGAACATCTTTTAAATTACTCAAGGTTTCACAAATATAGAGGTTTCTT  
TGATCTTTCAAGTTATGCTGTAAAATAAGGACTTCTGTGAGAAAACAACAAATAAATGATTAGACTACCCCTCAATGTT  
ATTCATCTCTGTGTTAGCTGAATATTCGTCTTAAAGTAGGGCCCTGCCATGCCATTCTCCTGCTAAGAGTCTGCATTGGT  
TTCCTACTGGATCAAATCCAAGCTAAGGCACTCAAGTGCCAAGCAAGGCACTCAAAGCCTCATATAGTCTCAATTCCCC  
TTAACCATCTTAGGTTATTTACCTCAGCTGCCTGTAAACAAATCTCTGCTCTAGTCAAGAAGTTTCTCTTCTCTTTTC  
TTCCTTCTCTCTTATTAGCCACCCCTCTGCGTTAGGCACCCGTTTACTAGTCTGCCCTGCTTCAAGGACTTCTTATTT  
CTTCTCTGATGTTCTTTTCAAGGATGAATGTCTTCTTTTCTCTGCTTATCCATACACCTTATGGACCTATCTGTAA  
GATCCACCTGTAAATTACACACTTTGTTTTCATGTCCCTAGCCTACAACAAATAATCTCTCTCTTCTTTCTTAA  
TTACTTTTGAACCTTATCAGGTGTACCACACAATTTATTAATCCTTATTTAATTACAGACTGTAGACTTCTATAATGTT  
TCTAGTGTGAGCCTTGTCTCTTAAACAAGATTGTAAGTGCTTAAAGAGATTTATGTCTTATACTTTCCCGCCTATACTT  
TGTAAGTAGAGGTTGTTTTTAAAGAGATGCCCTACAATACTTGGCTTTTCTCTCTGTATAGGTATGAGTCTGTCTA  
TTAATAGAAACAATGACATCATTTTAGGATAGATAGTAAATGTGGTTTATCCAGCAGCAGATCCTTCCAATCTGATAT  
TAGTTTATGCACTTTTATGAGCACACATATTTTCAAGAACTGGAAGATTTGCTTCTGTTATATTTGAAATTTGA  
ACACCAAACTTCCACATTGTGAAATGTTTGCATGAACACTTTTGAGAACTTTAGATGAAAGGTGTAGTATAAGTACAAA  
GTATGCATCTTCAAAAAGCAAATGAAAATGCAAATATTTAGAAATTTCAAAAAGAGCATGGGAAATTTGGGTATAT  
TGCAAGGCCAAATAATTCATCATTTCTTAGAGCACTAGAAAAGGTTGGGAAATCTGTCTTTGAAGCCTTAGAGT  
ATGTATATTTTTCTCTTTAGCCCTGTGCTGTTTCTTGGAGATATGCCTGTAGCAATAAAGGTAATCGGGAAGGCTTTG  
AATTTCTGAGACAGTGTAAAGCATTTTAAACATCAGATTAAAGGTGGCAAAGCTAGGGATGATCTACAGGTGACTTC  
AAATCAGGGGTTACATTGCAAGTCCGTCTTTTGGATGAGATAAGTCAAAGTGCCAGTGAATGTGTTTGGTGGCAAGAA  
AAGAAGCTGAGAGGTCAGGATGCAGAAGTCAGCATTTTTCAGAAAGCACTGGGATAGAATTTCTTTGTGTGGAAGT  
TACCATGTCTGGAGATACCTCACTTAATGACATTAGTTGAATACTGTGCAGTTTGTCCAATTTTCAAATGAAGTACAT  
TTATGATTTTTCTCTGTGATGATATTTATTGCTTTTCTTTTTTTTGTTTTATTCTCTGAGATAGGTTCAATCTCTGCT  
GCCAGGTTGGAGTGAGTGGGGTGATCTCCGCTCACTGCAACCCCGCCTCCAGGTTTGAACAACCTCTCCTGTCTCA  
GCCTCCCGAGTACTACAGGCACACATCACCACGCTGGCTAATTTTTTTTTTTTTTGTACTTTTAGTAGAGACGGGGTTT  
CACCATATTGGTCAGGTTGGTCTCAAACCTCATGACCTCAGGTGATCCACCCGCTTGGCCTCCCAAAGTGTGAGATTA  
CAGGCGTGAGCCACCATGCCCCACCTATTGCTTTTTCAGGAAAGTTTGGAGTGTCTGAAGGTTGGGGAGGATCCA  
CATTCTCTATCTTTAGAAGCTTCTCTTTAGTGCTCTTTTGAATGCTGGCTTCAAGTCAAGTGGGATAGGTTGATCAG  
GCTGGGTGCATTTTATGATTTTGTGGTATCAGAATTTGAAAACAAGATCTGCTCCAAAGGTAGGGGAGGTCACCTGG  
TAGAGACAAAAGGATGTTTTGCCAGTTTGCAGCAGAGTGCAATGTACTGAAAGAGGAGTGCTAAGTGCAAGTTGCAC  
ATCTAAGCCAGCTGCTAGTGGGCAAGTCTGCAAGTCTCACAGGTGGCAGCCCATGGGCGGCCCCATCAGGAAGA  
CAGAGCCTGAGTGTGGCCAGTTTGTGGTGTCCAGGCAGTGGGTGATGAAGCTGGGCTCAAGTAGGCCTGGCAGCTGAC  
AGCGGACCTAGCCTTTGAGCTGGGGATCAGAGTTGAGGCTTAAAGGAGCTCTCAGGCAGAACTTGAAGACAAGGAA  
GGTGGGGGAGTATGATAAGGACCAGCTGCTGAAAACGGGACACGCTGGCTACAAAAATAATAATCCCCACAGATA  
ATAATAATAAAGATAGCTAACACTTATTGATGCTTACTATATGTGAGAAATGTCCCAGGTCTTCAACATTTTAACT  
CTATCAATCCTTAAAGCTGGTACTGTATCATCCCCACCTTATGGGGGAGTAAACTGAGTCCCAGTAAGGTGGAATAG  
CATTGTCAGAGCTACACATCTAATTAGTGTAGATAGACATCTTAATCCAAGCATTCTGGGTAAAGTCTGTGTGTT  
TATCCTCCAGGCTATCCACCTTCAAGTACTAAAAGGTGATACAAAATAAATTGAGTCTTTACAGTTTATTGGAAAGGG  
CAAAAGCTTTGAGCTAGAGAGATAAGGATTTGGATCTCACCTTACCCTTGTATTCTGACATTTTGGGAAAATCAT  
GTGATTATCTTAGATTTGCTATATCATATGTAGAATGCGGAAATGCCATCCAGCCCATGATTTTGAAGAACTAAGTG  
AAATAATAGATACAAGCTAATTAGACTTTCATCTGGCAAGAAGCTGCCACTCAACAAATATCTGCTTGTCTTCTCT  
AAATGCCCATTCGTATAGAGCTCTTTCAGTTACTTCCGATTGGAAATAGGATTATCCAGGGCACAGTCTGGGCTAAG  
CTTGAGATAATTAGGGAAGCCACAGGTTTCAACCTTGTGAAAAGAAGAATAGATAGATAGATAGATAGATAGATAGATA  
GAGACAGATAGATAGATAGATGACAGAGAGATAGAGATATAGATTAGATAGATAGATAGATAGATAGATAGATAGATA  
GCTAGCTAGATAGATAGATAGACAGACAGATAGATAGATAGATAGATAGATAGATAGATAGATAGATAGATAGATAGATA  
TGTTTCTGCTGCTTACCCTTAAACAATGTGGTGCTTTCTTCTTTTAAATTTACAGAAAAATGTGCTGGCAAGTGCTTT  
TGTATACAGTTAATCAATCAATGAACTTTCATCTTAAAGATGTAACTAATGCTCACTTCAAGAAACAATAATTGGC  
AAATTTAAAAATTATTCAATTTTATAACATGTTAATCTTTGCTTTCAAGATTTTTGTGTTCAATTAATTTGTAGT  
ACTCAGAACTGACTGAAATGATTCTAAGTTTGAATTTCTAATTTATGCTTGAATTTCAAAGCCTACCTTGCATAGGAT

Fig. 6 90



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GGTGGCTAGGCCATAAATTACATCCTATCTCCAGTTAAGGCATGGATACCTGCACCATCTTTCATATGAGAAGCATC  
AACACAATTCTGACTATAAAATTTATGATCATTTCTTTCCACCTACAACCTTTTTTGGATCTTTAGCTACGAATTACATT  
TAAAGCTATTACTGTATATACTTTTTCTGTACTTAAACATATTTGATAGAAATAGCCACGTTTCGCTGTAGAAAA  
ATTAGATTACATTAGGCACAGAAATTAAGGAGAAAGCCCAATAATCCAGTACTAAATAGTATCAAATTTTGAGG  
TATATCCTTCCAGATTATTTTCCATAGATGTTGAGGCATAGTACAGAAATGGGATCAGACTCTACATACAGTTTTGTAA  
TCTGTGCTCCTCAGTCAGCTATTTATTACAATAAACACCTGTATATTTCATATACATTCTGTAGTAGCCCTCATTC  
CATTCAGTTTTATAGCGTACTAATTTAGGTAATCTGCTATTGTTAAGTATTTAATTTATTACCTAGGCCGGGCATGG  
TGGCTCATGCTGTAATCCCTGCACCTTTGGGAGGTGGAGGCGGGTAGATCACTGAGATCAGGAGTTTCGAGACGACCT  
GGCCAACATGATGAAACCCGTCCTCTACTAAAAATATAAAAAATTAGTCGAGCGTAGTGGTGGGTGCTGTAATCCAGCT  
ACTCAGCAGGCTAGGCAGAAGAATCACTTGAACCTGGGAGGCAGAAGTTGCGGTGAGCCAAGATTGCGCCACTGCACCT  
CAGCCTGGGCAACAAGAGTGAACTCTGTCTCAAAAAATTATTCACATTGTTTTATTATTATGAACAAGGCTTTGACT  
GTCATCTTTGCACATCCATGTGTCTTTTTTCTACTGATTCAAGGGGCATGTGTTTTATCAGGCTTTTTGATGTATTT  
GCCAAATACATCAAATATCTAGAAATAGCATGCTGACTATACTCCCTCTGGCAATAAATAGTGCCCTCAAAATCTGTATT  
TTTTTTCTTTCTCATGTACCATTCTGATAGACAAAATAGGCATCTCCTTATTTTATTTTTTATTCACTTTTCTCTCGCA  
TGGTTGATTTTTTCCATATCAATTAATTTAAATTTTTAATTTATCCTTTTTTGTAAATTCATGATTATTTCTCTCTCTC  
TACTGGGACATATTTATTTTCTTACTGATTTTAAAGGTTCTCCATGTTGTACCTCTTTAACTATAAAAAATGTAATA  
TGTAATATTTTCCAGGTTGTATTGTATATTTAAATTTTTTGATATATAGAAGTTTTTGTTTTAAATTTGATTAAATCA  
CAGGCTGGGGATGGTGACTCACACCTGTAATCCAGTACTTTGGGAGGCCAAGGCAGGCAGATTACTTGAGCCCAGAAA  
TTGTGACTAGCCTGGGATCCATGAGGAACTCTATCTTTCAAAAATTTTTTAAAAAAATTAGCCAGTATGGTGGCC  
TGCACCTGTAGTCCAGCTACTAGGGAGGCTGAGGTGGGAGGATCACTTGAGCCCAGGCACAGGTTGATTGCACCAC  
TGCACCTCCAGTCTGGGTGAGGACCAACCTGTCTCAAAAACAAATAAATAGATAAAATAAATTAATGAAATCAATTT  
TATTCATAGTTTATGCACCTTAGAGAACGATCTGGCATATATAGTGCTCAGAAAGATCTTCTCACCCCTTAGAGAAATAA  
AACGTTACATATAATTTTCTTTGAGTATTTTCCATAGCTTCTTTTTCATATTTAAAGTTTGAATTCATCTGGACTTTAT  
TCTGGCATAATATAAGTCTTAAGGCTTATTTTCCAAATGATTATCAAGTTGTCCAGTATAATTGATTATCTGTGTT  
CCATATGCTGATAAAAAATGTTAACTCTGTCAAATATCAAATCTTATGTATAGTTGTATCTTTGGTGTCTCTGTTC  
AGTTCTATTGGATTCTCTTCTAGTCTGGTGCCAGTATCAATTATTATAATTATTACAGAAATTAATCTTTGTTAATAT  
TGTCTTTAGAAATGTTCTGGATATTTACATTTATTTATATGAGGCTTTAAATAACACAGCAATGGGAGACAAGG  
GGAATTGCAATTGGGGGTGAATAAAGCAAGTTTGGAAAAATGTTGATATTGTTGTAGCTGTGTGATGGGAATGTTGGGAC  
TCATGATCCTATTACTCTGCTGTCATGTATGTGTAAGTGACGATAACAAAACCTTTATATAAATAATTAGGTAAATA  
ATTCAGATCGGAAGTGCATGTAATTGGAATGTCACATGCTTCTCTTTAGAAACATGTTTTTAAAAAAAGTCTCCTT  
TTATGTACTTCAATGAAGTTTTGTAGTTCATTTCTTTATATAGTCTCCTCTACCTTTCTAAACAAACAGCATACAAAC  
TAAAGAAAGCTTCTTCATGCCTAGTTTTTAAGTTGTGTGTGTGTGTAGCAATTATATTCAAATTTGTTGGTATATAG  
GAAAACCTTGATTTGTAATCAACCCAGTTACTTAACCTTAAAAAATAAACTCTATTTCTTTCTTTTCTTTTCTTGGC  
TTTTCTTTTGGGAGGTTTTTCAAGTAGAGAATCCTGTGGTCTTCTTATAGTGATAGACTTGCCTCATCTTTTCAATAT  
TTATGATTCTCCTTTATGGGATTTTATGCTAGCACTTTAAACACATTGGCAACTGAGGTTGGTGGTATGTTT  
TCTGCTGCTCCCGCTTTAATGAGAATGTCTTCCATCTTGATCCTACTAAGCAAGACATTGGCTATTTGAGAAAGATATG  
ACTTTTGGTCCCGTTTTATTAATCTTAAAAATCAGGATTCAAGTTAGTGTTAAGTGTTTTACATGCATTTTAGACATTCTTA  
GAAAGGATTATGTGTTTTTCTTTTCCCTTGGTCTATTACTTTAATGAGTTATATTAATAGGTTTCTTACTATTAAACTC  
TTCTCACCTCAGAGTGTGTAACCTCATGAATAATATGGATCTTGTGTACTGTCTTACAGAAATTCCTAAATTTGATG  
GCATTTCTCCATGATGTTTTCTATTGTTCTTCTGCTTCAAGTGAATTTGGGAGCAAGGAGAGTGAAATAAATGGAATGAA  
ATTTCTATCTTATACTGGAAGTCTGGCATCTGTCATCTACAGTAGAGTCAAATGTACTGACTGAAAT  
CAGCTATGGTTAAAGAAATGTGGCTTTTATTTCTTATAGCAATTTTCTAGCTCTAGATTCTAGCTGTAGAGCCATGTTT  
CCATTAATGAGGTGGGGGAAAAACACCAAACTTTAATTCATTTTCGGGATAGAAATAGTTTCTTTGGGTGAGTATGTA  
ATAATTGAAAGTTGAGCTATATATCAGAACTGTTTTTCTCCTCTTCAATGACTCTGTAGTCTTCCCTAAAAACATAAAA  
TAACTCTGGGTGAGGAGAAAAACATACATATCTGGATTATACTTACTAGCCATGTAATCTTGTGATGATTATTTCA  
GCTTTCTCTACCTTGATTCTCATCTGCAAAATGGATATTAATGACAACTATTTTACAGAAATTTTGTGGGAATGA  
ATTAGTTAATATATTTTAAAGTATAGAACATTTCTGGTACATAGCAAAATGCCCATAGCGTTTGTAAATATAATAT  
AAAATTATGATTGTTCTCATAGTGTTAGAGAGTGAAGTGAGTCTTGGTTATGTGCAATTTTCAATTTAGTGCTCTTGG  
GATGATTTGGTGTCTGTCTCTCTGCTCCACTTTGAAGTACTGGAAGCTGGTTTAAATCTTAAATCTGTCTCTTGC  
CATAAGCAAAAGAAATAGGAATTACATCTGTTTTTGGCAACTAGGTTGGCACCCTTCTGGGAATATGGGGTCTCT  
TTCCTTAGTAATATTTATGAATGAGATAATCTGTAAATATCTTGGTATGGTATGATATGTTGTGACATCATCTTCA  
CTTAGCAGAGTTTGGATGAGTTAGAACTGAAAGACCATTTTAAATACTAAGTTTCTTTTCACTGACTACTCTACTCA  
GATATTAAATTTGGTTTTTACTTTTTATATGCTTTTCGCTTATATTACTTCTTTAGTGAATTAAGAGATTTTTAA  
AGAGAAAATTCTAGCTTCTCAAGCATCATGTGCTTCTGAAAAATTGAACATAAAGCCCTGAGATGATTAAAGCGTAG  
CCGATCCTTAGAAAAGAAATGGCCATTTTCCATTTTCACTAGAAATTCATCTATTAGCAATAATATTTATGAGATT  
TTGCTGTTGTGCAATCCCTCATTCATCCCTTATCACCATTTGAATGAAGAGAGCAAAATCTAATTCAGGTGCCAG  
ATGGGTGCCACAAATGGCAATGATTACAGCACAGGCTCCAGTTACAGATACCAAGCTCTGAACAGCTATTTGGATAAT  
CAGGAGATCTTGGTGAACCTGAGGTGAATTTCTTCTGTGTGTGAGGCTCTCCACTTGTCTTTCTCTATATTAGAGCC  
TTTGAATTTGCTATGAAGCTTGGTATCTGCTTTGTCTTAGCAGTTAAGAGTTGGTGTGCAATTCACATCTTGTCTGGA  
AAGTGATGGGTTCAATTTGAGGCTCATTTGAATGAGTCTTGAAGAAGGAGCATCAAATGAAAAGGATTTCAAATCTC

Fig. 6.917

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TGAGTATAAGGTTTGAATGTTTCATTTGACCTCACTGATGGCTGTGGAAAAGCCTAGGCTTGGACACAGAAACTGAAGG  
TTAAATCTTGTACTATAATTGAGTGTCTCTAGAATTAGTACAGGCTTCTCTCATTTTGTGCGTGTGTAACAGCAGACTA  
ACAATCCTGGGAAGAGTGCATTTTAAATGAAACATTTTTCAGGGTTAGTAAAATCCAGATCTCCTAAAAAACCCAAATG  
CTTGCTTACTCTAAGATGAGAAGGATAAGCCAAATTCAAGGCTTCTCACTATGCCACCAGGTTATACAATAAATTTTGA  
GCTCCCTATCTACATTTTGAAGGATTAATTCTAACTGTAATTTACCTTGATTCTTAGAGCTCGCTGAGGCTCTTGCT  
GTTAAAGACATATCAGGGGACAAAGTAATAAAAGCTTACATTTAAGGAGTGCCTTCTTAGAGTTAGGTACAGTGGTTA  
TATACGCTGACATGTAAGTTCATCTTTAGTTTACACAGTAGTAGCCTTGAATGTGAGTTTCACTATCTACATTTATC  
TTGATCCTGACATTTGACATGCAAAAGGGTTAAGTAGTTTCTCATGGCCATAAAATTAGAAAATGGCCAAAACAGAATTT  
GACTCCAAATTCTTTGGAATATGGAATATGACTGATTTCCAAAACCTAATATTCCACTGATTAGTTTGTCTCTTCTATCT  
CTCCGAATCAACATCTCTTACATAAATTACTTTTGTAGGGGATATCTTAGAGTTCTTGTTTTATAATGGAGTGAGAA  
AAAAATATCTCCTTAAGAACAAGGAATTAACAAGGCACATTTGAAGGAGTTTATTTTATCTACCACATATACAC  
TGAATATGAAAGAAAAGAGTATATTGAAAATGATTCTTAATGGCAGAAAATATTATAATTTATGCTGTACTAGATC  
TTGATTTTGTGCTTGTATTATTTTATGTCTATAATAAATGGTAAAACAGTAAAACCTTGAAGAGCAAAAAA  
AAATCCAAATCTTTGCCCACTTTTCTGCTGTTATTTTAAATTTAATGTAAAAAGCCAACCTGCTTTTATCAT  
CGTTAGAAAATTTGCTCCAACTAAGGGGCATGTACAGTTTCAATTTGTGGGTGTTAATGACTCCACCACAGTGGGCTC  
ATTCCCTTGCAAGGGCGCTAACGGGCTGTTGCTTCTAAGAGACAGAGGATTGAGAGGTTTGGTTTCTACTCATAGTC  
TTTGGTTTCTTGGCTCTGTTATTTTCTTGTGTTTATGTTTCTTTAATTAACATTGAGTTTCTTCTATTTATGCTTGTCT  
TTTCTTCTGTTTGTACAGTCTGCCGCAATGACTCCTTGGGTAGCACTTGTAAATTAGGGAGAAATGATAGCTTGGGG  
TACTTCTGACTTACTTGGTGTAGGATAAAAGTTGTTCTACTGAAGCCGCACTTAGAACAACCTTTATGTACCTACCTC  
AAGTAAGATCTGCATGATGCTCTACCAATCCCTTTTGTCTCTTTGATCTTTACTTTAATCTGTTTATTTTATTTAA  
ATTCTCATTTGTGTCCTAAATAATCTAAACCAAGAGTATTATTAGGTCTTAAATAAATCACTTGTGTTTCTTAAAGGA  
GGCTATTACAGTAGATTTTTGTGGGAAAATAAAATTAGAATTCACGGCTGATTGACTAAATAAAGCACTTAAAGAAC  
CAAAGGGTATGTTGATTTTAAAGGAACCTTCTGAAGGTATCTGGCTCATAATTACCCAGAGATAAATAATTTGGTTCT  
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CCTCACTCTCACCTTTCTCTCTCTTTCAGCTACCTATTCTCTAATCTAATCTATCTATCTATCTATCTATCTATCTATC  
TATCTATCTATCTATCTAATGTCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTG  
CTATCTTGTGTTTGGCAGAGAGGCGAATGTTTCTGTTTGAACCTAGTTGGTCTCATGATACAAAGTACAGACTAT  
GATTTGTAATTAATGATTGTAGACAGCAGTCTCTACATACATTCTACAACCTCAGTGAATGCCATTCTAATCTT  
CTCAAATTTACAGTATTACAGACAGCAGATTTTACTTTAATATGGGACAAAAAACATTAAAAAGAATAAAGGCTCAG  
TGCCTTGATGAATCCACTTTTCTTGTAGCTAGTAAGCAGCTTGCACCAGAGATTTTATGGGGATCATCTTGCTATCA  
TTTTATTTTCTCATGATGACTCAGGGAATTTTATCTGAGGCTCTCAATGGATCTGTTATAGTCAAGCTGATGATGAC  
ACATCTCAGAGGCTCATTCCATATTGGGCTCAGGCCAGCAAACTACGCACCATGCTGTCTATGATTACAGGACGAA  
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GCTTGTGTTCTCTATGTAAGTGTGACCGCTGCATATTATTCAATGCTCAATGCTGAAATTAAGGCTGTA  
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ACCAGCTATTCTGAGATTCTGTCAGAGCACTTAGTGTATTGTGTTATTGCTCTGCTCCCCACTAGAATGAGAGTTCC  
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CATTCCCAAACAAAGGAAGAGAGCATGGCTATGGGGTAAGGAAGAGGGGAAAAAGTCCAAGACAGAGGACAGGGAGG  
TGAGAAACCGTATGGCGTATGCAAGAATTACAAGTGGTTCCCTATAGCAAGTGAGTGAACAAATGCTGTGTGGGAGGT  
CAAGGGATGATACTGCAACAGCAGACAGGGGACTCTTACTTACCATTGTAAGGAGATTATTTGGACTTTATGCTGT  
AGGGGATAGGCAGCTATTGATAGATTTTAAAGGTGGACTTGAAGTAGGCAGTATGGTGACAAGAAGAATAGAAAGT  
GCTGAAATTTGTGTAGATAAACTCTGGAAGACTGTGGTAGTGGTAGACCCCTCTTAGTGTATGATATGATGTGGC  
GGGTAAAGTAAACATGAGCAGCTAAACAATGAAAATAGTGGATTATCAAGAAATATAATCTAGAACAGAGGCTCC  
CAAGTGCCAATCAAAAGTGGTGGTCTTCCCTTCATGATTATTATCTGGGGTATTGGTCAAAAGTAGATTCTCTGA  
GTACCTGTCTCAAGTTCTGATTCTGATGATAAAATAATCAATGGTATCACTCATATTTTATAGATGTAGACAAAATAAGAA  
ATGCACTCATGTTTGGGAAATGCTGATAAAATAATCAATGGTATCACTCATATTTTATAGATGTAGACAAAATAAGAA  
GACCCCGTGAAGTAGCAAGAAGTTGAGCAGTCAGTTGAGAACAGCAGAGGAAGAGGGATTTTCTAGAAGG

Fig. 6.92



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CAAAACAATGTGATAGCAGAGAGTTCTAGTCAGATAATTTGTGAAAAGTTTGTAGATTTTGTGATATGGAGGTCTAGG  
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GAGGTAAAGAAAGATAACAGACATTTTTTTTTCAAATAGCTTGATTTTGAAGAGAAAAGAGAATGATATCTTGAGGAGGGA  
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TCAGTCATCCTCTCAGACAGCGGGAAAGGAGGTAAGGGAGAGTAAGCTGGGTGAGGAAGGAAGCTGAGGCATAATTTTT  
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CCGCCACCTCGCCCGGCTAATTTTTGTATTTTAGTAGAGACGGGGTTTCATCTTGTTAGCCAGGATGGTCTCGATCT  
CCTGACCTCGTATCCACCCGCTCGGCCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGCGCCCGGCTGTGAC  
AGCTTCTACCCCATATTGCAATTTATTTCTAATTTAATAATGAACCTATTTTGTAGATTGAGCTCCTGTGGT  
CCTATAAAACCCAAATCTCTTGCTTGCTGATTCAGTTGTTTATTTGCAATTTGCTCATGTTCCATGTGTTTGCATTCC  
CGGAACTAGCACAGGCAGGGAGGCTCAACACCTAATTTATTTCTAGGTGAAGTGAACCTGAAGATTTTCTTTTA  
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TTGGGTACGAAATAGCAAACTTGAGCACTGAAAAACAAACAAATGAGAAAGCAATCTAACAATTCACGAACAAAAAC  
TAGCACTTTTGTATGTCCTCTGAAGTAAGAAGAGATGAGTAACTTTTGTATTTCACTCAAATACTTTCTTTTAATCCAAC  
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TCACAAGGAGGCGAGGAAGGAGAAATGAACACAGGAGGAACTACCAAATACTTATAAAACCATCAGATCTCATGAGAACTC  
ACCCACTATCATGAGATCAGCATGGGGAAAACAGCCTCCATGATCCATTACCTCCATTTGGTTTCTCCCTTGTACAGT  
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GTGTGTAGAGGGCAAATTAGTGACATTTAAGAGCCCAAGGCAATAATTCAACCATTCCCATGAAAAATCTGTTATTCC  
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TACTTTGGTGAGTAAACCTTGATAAATTAAGCCTGTTTTTATTATATCTTTGGAGTTGTCTTTGATTGTGATCAAGC  
TTCTCTTTTATACATGCGACATGTTTCTTCTTATTAGATGAGAATCTAATCAAGGGAATAAACTGCCAAGTTTG  
GTTTCATTTATGCAACCCAGAAAAATATATCTTTTGATGATTTGGAGACAACAGTAAGTTAGAGACAGAGCTAATCCA  
TTACACCTTGATCACTCAGAGGCAACTGTACCCAAACAATTTCTTCCCTTTGCATCAAGAAAGTTTGTGTTTATCTGA  
GAGCTTAGTACTGTGCTGCGACATATAAGGTGCTCAATAAACTTTTTAAACCAATGCATCTGAGTGGCTTTATAATT  
CAGCAGTTACTGTATGAACCTGACTTACTATGTAGAAGAAAAAGTATTAGTTCAAAAAGAGGAGATTAAAGAATCTTC  
TTACATATATAAAACATGTCCTGTTTCTAGTCTTCTAATATTTTGTGGATGATTGGAATCCCTTTTCACTCATATTT

Fig. 6.93

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AAGGATGTCATTATGTATGGGGACATTTGCTGTTTCAATACATAGATTTATATTTGCAGGGAACCTTAAAGTCCCCGGAA  
ATTTTCTGAGATATTATCTGATTAATCCCCATAACAACGCTGTGAGGTGGGTTGTGGAGATATGAGGGGAAAAAGGG  
AAGGATTTTCTAATACCATACAGTTTGTGTATATGACGTAGCAATGAAAGTAGAACTTATTTCACTGATGACCAGT  
TCAGACATTTTCTGCTATATAAATCTTTAATCTCTAGGATAGAAACTGTCTTAATCCCTTTGCATTGACACAGCAAA  
ATGTATATAGGTGGTCCATCTAATTCATCTCTGAATATTCCAGCACTATCTGTCTTATCCACCTCCTCTATTCTTTT  
TATTTCTAAAGTGTCTCTCCCTGCAGGAGCTGACTCTTCTCTTTCTTAATTAACCTTTATGTGGAACTCCTATCGTAAC  
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CCACATTATCTTTGCTGAGAGAGAACTTGCAAGAACTAAGATAACTGCCTTCTGAGAGTCAACCTTTTTCATCAAAACA  
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CCCAGAGAGCAACTTCCCTTTTCAAGGCAGCCCACTCTGTGTGATGCTTTTCTTAGGTATGGGCAACCCATCCCTCT  
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AAAGAGTCTCTTGTGTAACCTGCTGTAAATGATCTAATAAAGTATGCTGTCTGTTTATTTCTTGGACCTTCAACTGG  
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GTTTTTATCTTTTAAATGTATAATTTCACTACTTTTGTACTTTAATATTGTCAATCATTTTAGCAAAACAGCTCCTT  
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GACCAAGCCTTTTATCTCTTCTTCCCTTACAGTAAGTTCTTTCCGAAAGAAATATCAGCCACATGCAAAATATATCT  
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AACCAGTCACATTCTGAAAGTCTTCTCTCTATGAGCTTTCTACCTGGCATATATCTCTAATTTCTTCTTTAATCT  
TTTTTAAACATTTTAAATTGAACATCTCAGGCTCTACTGAAGTTAAACCTTATTTCAATTTATGTTGTTCT  
TAAGGTACCACAGTCATGATACTTTTAAATTTATATTAGTGATGGAAGAAAGCAATAGAGCAACTCAAAGAAAGCC  
ACACAAGGAAAGGATGAAAGCAGACTATTAATTTCCATCAAGCAAGGCTAAGAACACATCCCTTTGTTCAATTTACCCA

Fig. 6.9

AGGGGGGATAAGGCAATCCAAACAGATGACTTTGTGACGTAGAGCAATTAATTTGAAGGCATCAGAAAAACCAAAATGCA  
AACACATTTCTCTAGTATGGGAACACTTTTGTGTTATAACCAAGTATCTATTGTGGTGGCCCAAGGCCATCTTTCATTC  
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TGTTAAAAAATGAGGATATGCTGAGAGATATGCCAATCCTTTGACTGAATACCGTGTGTTTAAATACCAACAAAGTAAAT  
CAACAACTCTGAGGAATTTGTTCAAATTTATGTGTTTACTGGTGGTGTGTTGTTGTATGGATTATGCATAAAGAA  
GGGGCACTGGATTGTAGCCTGGAATTCCTTTTATCATCATACAAAGTCACTCACTGTAATAGGAGGTGACCTGCATACA  
AACTACCAAACTGCAACACATCTTTCTCTTACTGAGTTTCTTATTATAAATTAATATGAAAGCAAACATTTTCATAT  
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GAAAGGCTCAAGCTTTCCAGATTAAGAGAACCTGAGTTGCCACATTTGTCAAATGTAAACAGTAGAATCTCAATTC  
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TTTCATTGTGAAAATTTAAGGCATACAAAAGAGGTAGAAAAAGATCATCTTAAACGATCACTTACTTAGTGAGTTC  
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TACAATATACCATAGACTAGGTGGCTTAAACAGAAAAGTATTTATCAAACTTGCAGGCTGGGAAGTTCAAGATCAA  
AATGCCAACCAATTTTGTCTCTGGTAAAGCTCTCTGCTGGTTTGTCTGATGGCTTGCCGAAAGCTACTTTTTCCCTGG  
GTCCTCACATGGCAGAGAGAGAAAAGCAAGATCTCTGCTGCTGCTTTTAAAGTCACTAATCCCATATTAGGGCCCC  
ACCTTCATGAATTCATCTAACCTAATTACCTCCCAAGACCCCACTCCAAAACATCACTTTGGGGTTAGGGGCTT  
CAACAAATGTATTTAGGGGGACACAAACATTTGGTCCATAAGAGAGTTTGATATTCTTTTTTTTTTTTTTTTGTAGA  
CGGAGTCTTGCTCTGTTGCCCTAGGCTGGAGCGCAGTGGCGCGATCTCGGCTCACTGCAAGCTCCGCTCCCTGGTTAC  
GCCATTTCTCTGCCTCAGCCTCCCGAGTAGCAGGACTACACGTGCCCGCCACCACGCTCGGCTAATTTTTTTGGCATT  
TTTAGTAGAGACAGGGTTTACCATTGTTAGCCAGGATGGTCTCAATCTCCGACCTCGTGATCCGCCCGCTCGGCTTC  
CCAAAGTGCTGGGATTACAGGCATGAGCCAGCGCTGGAGTGCAATGCCGGATCTCAGCTCACTGCAACCTCTGCCT  
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CCTATCAATGGATTACTATTTAACTTTTTCAGATGTTTATATATTTCAGAATGACTATCTCAGTTACCCTTCTTCCCT  
CTGCTAATGCCTGCTTTCTTACTGGCTTTTAGCTAATCAGGGGAGGGAAGGAAGGTACAGACAAGAGAAGGATATA  
AAAATTTTGTGTAATTATATATTTTAAATCAGGAGTTAAAGTAAATTTTAGCATTTTCTTTTCTTATAATATC  
CTGTTATTCTCCAACTCATGAAGTTTATAAATCTTCTCATCTGGAGAATAAACTAGATAAATTTTAAATCTTATTC  
ATTAATAAATTTCTGTGTATTAATTTCTAACTTTCTTGAGTCTTTTGCAATTAATTTCCCAATTTTCTAGTACACT  
GAATCATTTTCTTCTACCAGTTTGAAGATATCAAGATGTCATCTAATTTGGAATTTGTAATTTTCTTGATGAAA  
TGGCCTTTATTTGACTTAGGATTCTTATGATGTTCTTACTTTTGATAAATTTGTCACTCACCAGATGCTTTTGATGT  
TCCTTGTTCTTTTTTGATAGAATTGTTGTTCACTGTTTCAATCAAACTGGAAGCACTCTGGTGTGTTGGAAGACATA  
GGGTATCTGGCACATTTCTTATAATGAATTTAAAGCCACCTAAATAGGCTGTCAAGTTTGTAGTCTGGGGCTAGGAG  
CCCATCTGGTGAAATTTTCCAGTAGGCTCCCTAGAATATTGCTTATTTTTCATGGAAGACTTTAAAAAATGTACAAA  
CTTGGTAAACTAAGTGAATTTTATCTTAAAGAAAATATATTTTTTTCATCTGTACCTTTACATTGCTGAGTTTTTA  
GAAGCAGTCACTCACTTAATGACCCAGGTTAGTTATTTATGCCATTTTATCTGCATTTTTTAGTGTCTTCTGGAGTG  
GGCAGCCAAAAAATAAATTTAGAAAAGATGGTATTTGTTATGGCACTTCAGAGCTATCTGCATTCATTTTTCTCTCA  
CAATTACCTGTAAAGATAGAGTATTTTTTATTTGTATGGTTAAAGTAAAAATAACAAATCTCTCTAGATGGGCTTCA  
ATTCTCTACTATATTAACCCACCTAAGCTACGAGATTGACAAAGCTGTGCACTTGAATCTTAAATGAAGTTAAGG  
ATGTATAAACTGATTTTTTCACTGGTATTCACTCAGCAGGGTCCAAGAAGGTACGGGAGATGCTGTAGGTAATCC  
TTTGAAAGACAAAAATACAAACAAACCAAGTTCTGCTGTGCTTTTATTCACAACAAATGATATGAGAAGTTGT  
AGTTTATGAGATTTCACTCTTTGGTCTTATACCTGCTTCCAGCTTGTCTCTCTTCTTACAAAGTTCTACAAATAT  
TTACTGAATGGCTACTGTGTGTTAGGCTCTGAGTATCCAATGTAAGATACATGTTCTCTTACCTCATAGAGCATATC  
TGATAACTAAATTTATAATTTTACAATTTGTTAAATATTTCACCACCTGTCTCCTTACCTCATAGAGCATATC  
TATCCCATTTTAACTTTTAAATCTTTTATAGGAAGGCTGAAGTTCTGTATCTCTGAGTCTCTGTATTTGCACTTC  
ATCAGCTTGTGGGCACCCTGTTTAGTAGGATATTTTGTAGCTGTGAATAATGTGCTATAATGACAATATGCTCATTT  
TTGCAAAACATAGATTATTTAGAGTAGATAAAAAGATTTTCTCAGATAATCAACAATAGTATAAGATAGCCAAG  
AGTATAAATAAATGTGAGAATGACAGGAAAGGCTGAAAGAACAGCGACTGATCAGCAACCAATTGCTTTAAATCAATC  
ACATGTCACATGACTGTTTTAGTGGCCAAAGCCAATCATTAATTTGTATCTTGGAAAAAGTTCCACTTTTTTCTGTAC

Fig. 6.95

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TGTGATGTGTTTCTATTTTCATTTTTTGGACAATTTCAAGTTGAAGTTGAATTACAAATGATTACGTCCAAGAAATAATT  
GCATATATTGTACTTACCAGTGTAACACCACAGATACAAAAAATGGAGAGAAATCTTGTTCATTGTTAATGAATAT  
TAAAAAATTATTCTTACAGACAAAATCTCTCTTACAAAGTGAAATTTTGAAGAAAAGCATAACTGGTGGAGTTTCT  
ATCAGTAGTATTGCTCTAGAAAAATGTTTATAATGGCTGCTTATTTTTTAACTGAAGGTAATTTCTTTTAAAAATTTG  
TTAGCTTTTTTTTCACTATTGAAATGGCAAATGTTTTGAAAACATAAAATTTGACTTCAATTAAAAATTATTAGTGTGTT  
TACATTGTTTCCCATGGTCAGCACTTTCAAGGGCAGAACTGGAATTGTCCCTGAGTTATAGTTCTGGCTTTGCATCTGT  
GCATCTATGTCTTGGTAGAAGAAGTGGGAGTAAGAGAACCATAAGTAATAGTTTTATTATCAAATGCTTCCAATAGCT  
TGCATAATTTTTTCAAGGGTAAATAGAAAAACAGCATTGAAATCAATTAAATAAAGCAAACAAAAATCCAA  
ACCAATCATCAAGCAGAAATCATTTTTAAAAATGCTATACAATAATCAATTGTGTTCATACTTCTGCGCCAAAACCTT  
TAAGTCTTAAAGCTTTCCCTAAATGGAATTAGTCCATCAATAAGCAGATAACAACCTTTACTTTTTATTGTTGAAAAATGTC  
ACTCTTGTTCAGTTTCAAGTTTCCCTAACTTGTGCAATTAAGCAATGACAGCAAGGCCAAGAAATGGTTTCGTTGGTA  
TATAGTTAGAGAGACCTGACCCTGCTTTCTTGTCTTCTTATACCAGGATATGTCTATACGCCACACATGGGGGT  
AGGGATACCGCCCTACTTATAGCATAAGAAGTGAAGATAAGACATTTAGCTTATAACTCTTTTATGGTAATATCCCTT  
CCCCTGCCATTCTTCTTACTCAGGTAGTCTGGACTTCTGTTTTGGCAATATTGCTTCCGTGAGAAGGTTGACTGTGA  
CTTGACGCCCTCAACATCCTGAATTTAATAACATCTACGATATTTGTTAAGCCCTCACCACCTATTGACCAACTATG  
ACAGTTACATCCACGGAAGTGTATACCAATGCTACGATATTTGTTAAGCCCTCACCACCTATTGACCAACTATG  
GGTTGGGCTTTAAGATTTTTCAGAGGATCTTGTCTATGAAATCATATTGGCTTTTAGATAAATGTATTAAAAATTACTGAA  
AACAAATGATAACACCACAGTACCACAACCTAAACAATCTTTCTATAAATTAATTTAAAAACAAGAAACAACAGCTTT  
AAATGTCTATCTCTGCTTATTGTATGCTCTTAAAAATATTATTAAATGTCCAACCTTTATTTTTCTAGAAGAGGTCA  
TTATATAGCATTGATTTGCCAGCAGGGTCTATTGACATACCAAGAGACCTAGACATTTGCTCAGAAAACAGTAGTCTC  
AAAATAACAAGGGATTGGAGGAAAAGATGAGAGATCTCCAGTATGTCTGCATATAAGGGCTGAAAAAGTAAAGTTTC  
CAATTGTTTTTTTTTCTTGTCAAGTGCTCATGCAAGGATTCAGAACATGCATTCCTCACCACATAAATGAATAATT  
GGCAAGTAGTCAAAGAAGACCATATCCTTGAGTGGGTATGTTGTCTATTGGAAGCATTACATGTTTTGATTTT  
CCTGAAACAATGCTGAAAATGTCCTAATGCAGGAAGGAGAAATGAAAACAACCACCATAAATGCAATTAGATGTTGG  
TAAAAGTGACTCAGAATAGACGTAAGTTAAACCTTTCTGACAGGGTTTCTAGCACTGGGACAGTATTTTTTGGAGAA  
TTATAAATGGTCTTATTTCAAGATCTTTTAACTCTGATGAAATATTATGGTTCTTTAAATTTGTATTGTTAGTAT  
CATACTCTGAATTATAAAACATTTAAACATTTTAGTTTATAATCTTTAACTTCTCATTATTTATAAATGTGTAT  
ATAATTTGTGCATATGTAGACATTCATGAGGAAGATGAACATATATGTTAATTGGCATCTGCTCATTAAAACTAAAGT  
TGTATCTTTTATTACAGTAATACACGTCATTCATTAATTTATCTTGTGGCTTAGCTTTACAAATCTTACCGTTACAT  
GACTTTGGGTGAATGACCTCACCGGTGTCTATATCACTCATGTGTAACATGAGAGGAGTAGATTAAATAAACGAAAGA  
TTCTTTCAACTCCAAAGCTATGACAATGTATTTTCAAGATTGTGTAATCTTCTAGAACAGGGCTCAATAAATTTTCA  
CATTATGAATTTGCACTCAAAGAATAGGTTCTTCTTAACCTAACAAATGACTATCCTTTCCACCCAAAGTATAAACAG  
GATCCTGATTAATAAATGAGTTCAAAGAATCTCTGCCAAGTATGCAAAATCACTGCTCTGTTGTGCGACATTCAAT  
GCCTCTAAGAATTGATGGAATTGAAAATAACCTCATTTTACTGGGACCTCAGAGAATTAATTTAAATTTTGTCTG  
CTTTAAACATTAATTTTCTTAATTTTACCATATATGTTGCTGATAAGAGCTGTAATATTTTGAATGGTTGTGCTTGA  
GAAATCTGAATCTTTTGTGTTGTTTCCCATGACAGCAGCTTTGACCAGCGACCGCTCTCTTCTGAAAACCTACCAT  
AATGTGGACAGTGTGTTTCTTCTCACTTTCTGTAATTATAACAGTTCCAGGCGGTAACATGCAACCGAACTTTACT  
GAGTCTTGACATAATGGGAAAAATCATAGTGTAGAAAGAAAATATAGGACTGAATATAAAAAATAATCATTTCTG  
GCATTACAGGACAAACCCAGTCTTCTGCTTAGTTACTGACCTACCCCTGTGCTTGTCTTCTCCACAGTGAA  
ATGCTTTCTTCTTATATCTTACATGGTTTCCAGGCCCTTACTCCAGGAAAGCCAGGAGAAACCGCTTATCCAGGTT  
CAAGTAAACATAAATTTACAAAGATACAACCTTGCCCAACAAAAAATCCTTTTACAGCGTTATGCAAGGCATT  
TAGACTGGAACATCTATGTTCCAGACACAGACCTTAACCACTTTTGTCAAACATAAAGAGCAATCTTTCTCAAAGC  
TGGAATAACACCTTTCTTTTAAATAACATTTCTGTCTCACTCCAGATGTTTTCAATTAAGACTTTAGAAAATA  
CTGGGATCAGTTATCAGCCAAGAGTACCCCATTTCTAATAAATAATTTAAAGACATGGAATAATCAATGAATCCAAAC  
AATCATCATCTCACCACCAACCTTATCATTTCTATAACTCACAGTAAATAATCTCAAGTTCTTTATTTTGGTAAATTA  
GAAATTCAGAGTAAACTCTTAGCTTCTGATTTAAGCTCAGAGATGCAGAGAGCTTCAAGAGTGTCTCTCATTCTTA  
CCATAAGGAAAAATCTATACAACTACCTATTCAATTTAAAAAAGCACCAGCAAAATTTAGGTCGTAGGGCAACC  
AAACAACCTCCAAATCTGGAAGAGACAGGCACCTGCAAGAAGAAAGAGGATGGCATCATTTGTTTTCTTGGGTAGAC  
ACCACAGATGTGATGTAACAGCAAGATGATTGAGCTAAACATTTAATGAATTGCTAAGGCTGAGTATGGGTAGC  
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GCACTCACAGGAAAGACTGGGGAGAACAGCAGCCACCTTCAAAACCAACCAATTTCCAGTGGAAACAAAGAGTTAAT  
TGGCAAGAGAAATAGCAAAATCATTTGCTTAGGGAATGAGGAAACCAATTTGGTGTAGGTGGCAGTAGGAAGAATGA  
TCGTGGTGAGGGGAGAGAAAAAGTAATGCTCTATCCCAAGGGGTGGGGTATGGAATATATGCTAGGATTTGCACAAC  
AATTGGAGAAAGTTGACAGGACCTTGTGAAGGCCATTTGCTGATACAGAGGTACACATTACCTAAGACTGAGT  
CTTAATCAGAACATCAAGGAATGCCCTTCTCCTGGCTGTACCAACAGCCTAACAAAGTTAGTTAGTAAATAATAT  
GGAATATGTTGAATATGGAAGAAATTAAGAGACATCTCTTTAGGGCCAGCATTAAAGGGAAGACCCAAAGCTA  
AAGGGGAGCAAATATTAAGAAAATAACAAGTGGCAAGCCATTTCAATCTATTCTCTTTAAGAATCCAAAGTATC  
TATCTCAGTATCTACTGTCTTACACAAGATATCCGGCTTTCAGCAAAATATTATGACCATATGAAAAGGCAAGAGAAAG  
CACTCCGAAGAGATAATACACATAAACATGTGATATATGGGACATATAAAATTTATCACACAAGGAATTTAAAGTAA

Fig. 6.96

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CTATGATTAATATTTTAAAGGTTCTAAAGGAAAAGGTTGACCACATGTGAGATCAGATAGGTAATTTTCAGAGGAGATAT  
GGAACTAAGAAAAATCAAATGGAAATGCTAGAAATTAACCATAGTCAAAGAGATTAAAAATGTCTTTGGGCTTGT  
TAGTAGACGTGAGACAGCTAAGGAAATACTACTGGACTTGAAAAAAGTCAAGTCTGGTACAAATTAAGTGGCATGACATATC  
GTGGAATAAAAGGGAGAAAGAAAGACATAACAGAGCATCCAAGAACTCTGGTACAAATTAAGTGGCATGACATATC  
CATAATTGAAATGACAGAAGGAGAGGAAAGAGAAAAAGAGGAGAAAGAAATGTTTGAAGAAAAAATCGCTGAAAAAAT  
TTCCAAAATTGATGATGGACACCAAATCACAGACTCAAATCTCCAAGTATATCAAGCAAGATATATACCCAAAATAAAC  
ACACACGTGCAGAGTCATGTTATATTGAAATTGCTAAAAATCAACAACATAGAGAAAACTTAAAGGCAACCAGAGGGA  
GGGAATGATAAATTACCTAAAGAGAAGTAAGGATAAGAATTACAGCAAATTTCTCCTCAGAAATGTTGTGAGCAAGAAG  
AAAAAGGAATGACATCTTTAAAGTATTGAAAGAAAAACAAACCCAGTAACCCAGAAATCTATGCCCAATAATAATACA  
GTTAAACAGGAATTTAAATTTTCTGACTGAACTTTTAGGTTCTTATTCTGTCTGATGTCCCCAAAGTAATATGCAC  
CTATATCCTCATTTTATTTTGTCTTTTCTTTTCAAATCTGAGAGGGTAAAGCTGTTTCTTCTATTCAAGACCAACACC  
TCTATTGCCTCAGAGGGTTAGTCAATTGGCTCCTCCTCTATAGGCTCAATTGCAATTAGCTAATCTCTTCTTCTATT  
CTCCTTTTACCTTAGTTTATGAACTAGACCATCCAGTCTTTCTGTCTCCTCCGTCATGTATATCTTTTGACAAAT  
TCTAGTATTTATATTTTCTTCTAGTAGTTATTGCTATTTCTTCTGAGACTGCATGTTCTTAAACAATGCTGTTCC  
CCAAGATTCAATGTCATGTCCTTAAAGGATGAAGACACCTGAAAGATCATAAGATATCTCCTTTTCATGT  
CTTAACATCTTCTATTGATTATCTCTCAATTTCCATATTAGTTCCCATTTTCTACTTTTAGTCAAGAACTCTAAC  
AAGTGCTTGGTGGACATTCATAACATCTACACAACATTTCCCAACTAGATGCATCCATTATTCTTCTCATCTTTAAA  
CATACTGCTACATATCCTAAATATTTTCTATTATTTTCTGCTCAGCTATCCAGTTGCCTAAGGCAGAGCCCTGGGA  
ACCTTCTCAGCTCCAGACTCATCATCCTTCCCAACATCTAAACAGCAACAGTGTACTGCATGTATTTTCTGGGCAC  
ATATTTCTGAGTCTCATCTCAGCTTGACTTCCCTTTCCACCAATGCCCTGGGGATCACCTTATTTTCTCCCAAGA  
TGTTTCTCATTTAAATATACCACAGTAGTGATAAGTAGTAAATATATATGGAAGCTGCTGACTGTTGCTCCATTAGC  
TGTTTCTGTGGCACTCTATTTTTTCTTATTAATAGTGTACTAAGTGTGTTTGAATCTATGTCTTTTCAAACTTCTTTT  
GATTACAGTTTAAAGATAGCCTTTAAATACTAAATTCATATTAAGGTGGATCTGATTGTGTGTGTGTGTGTGTGTAAATTT  
CTGTTACAGCCATCATTCAATAATTCATTATTTGTGAGGAATAATTATAGCAAAGACTGATTAGATGAAATGTTAGATTA  
TTTATTATACAGGATTCGAATGGAATTAAGTCTAATATATGTGTTAATGTGACTAATAAGAAATAACAATAATAATTTA  
GAATTGCAAAATGCTTTTAAAGTTTCCATATACTATTACAACTTTTCTGTTTCTTTTCTTTTCTTTTCTTTTCTTTT  
GGAAAGGCAGTTATATTTATCCTCATTTTATGAGCCTTAGACAGATTAGGTGAGTTAGCCAGATGCACAACATAGTAAT  
GGTGAATCCTAGATATACTTCAGTCTTCTGATTCCAAATTCCTTACTTTGGACACTAAACCTTGGAGCCACACAAATG  
TAACTGTAGGCATCACTTATGTACTAATGTACCTGTTACACCATGTGCCTACTGGAGAGAACTGTAACATATTTATAG  
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TGAAGTTTGGGGAGCGGCAGTACTTTGGAGGACTCTGGTAAGTGAATAGATATAAGAAAGTCTGTCAGGGATAGAGCCA  
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GTGGGGAGATGGTTTTTGTATTGTTTATGTTTCCACAGAACTGAAATACGTTCAAATATTTGTCATATTTGTGTGTGTGT  
GTGTGTGTGTGTGTGTGTGTGTATTGAAGTACTTGGCATAAGGTTATGCTATTTCAAATTAAGTATATATATATATTA  
GGTTGATGCAATATTTCTGTGATCAAAATTTATTGAGGACCTCACCAATGCCAATGTGTGTGTGTGTGTGTGTGTATTA  
TATTATATATATAATATAATATATATATATATCTACTCATTTAGTCTCAAACCTATTCTATGACACTAATATTTTATGTA  
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AAAATACCTAAACATACATATTTGAAATAAGAGAATATGAGGAAAAAGTCTCAAATTTTATGTAGGTTTAAATAATA  
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TTGTCTGGATATGAGTATGGAATACATTATTCAGTTTCTTTTATAACTTTTAAATAGCTTGTGAAGACACCTATGC  
AAATAGCAATTTCTCCAAGATAAGTGGCCATACAGGCCTTATGACCTTTTGAACATGTCTTCCCAATACTTCATTCT  
GATTAGAGGATGGTCATTGAGATTTCACTGGATTAAATCCACAGTGGGATAGGTTTTAATCCTTTCTGGAAAAAATAT  
TTATAAAGCCTATGTGAGTTTCAAGATAGTAAGAGCTTTTATTCTGTCTCTCCTTGGATGTGTTAACCTTCTCTCTAC  
CTCAGATCCATGCATTTCTCTAAGTTTATACTTTGTTTAAATTGAGCTTTTATTGTTTCTATGACCAATTTTCAATTT  
GTCTCTACTTTGCACTTCAGTAGAACTAAGATGAATTTCTGAAAACGCACACAGCCTTCATCAATGGTCCCTTTCTGTGA  
AAGAGTATCTCTCCCGTACATATTCAGAACAGTAAATTTTAGGAATCACTGTATCTACCTAGAAATATGTTTTATT  
TCTCTCTGTCTCCAAAAACAATTGAAATCTCTCATATGTTTATTGCTTGCATTTACAAAGGAGCCACAAAGTTCTGA  
TTTGTGTATACTATTTTGTCTTAAGTATCTGGCTGATGTGACATCAACAATGACAAATGTAGTCTATTCCATCTT  
TGGTACATGGAGTATTTTGTATAAAATTTCACTATATTTTAACTTCTGAAAGTAAGGTGATTTTGAAGTATCTAGAA  
GATAGTTTCTTTTATTTCAACAATCATACCTGTGCTGCCAGATACATATTTTGTATCCCAAACTTGAAATATTTCAAT  
GGTTAGATTATTTATGCTTTTCTATCTGACAGATTTTATGTTTACCATTTTCACTTAAGCTTTCCAGCTTTTCTCCTC  
TTTAAAGTAACTATTGGAAGTTTCTATTTTCAATTTATCAATACTAGAAATTAAGAGTCAGAGATATATGATTCT  
CAGAAATGTCTGAAGAGTTTATTGTAATTTAATAAGATGTTCTCTCTGTTGTTTCTATCTATTATGTCAATACATATCA  
TCTATGTCATTATCGTGTCTCTCTCATGATTTTCTGGATCACTTTAATGCTCTAATCAAGTCTCTTTATTTTGTGT

Fig. 6.97

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ACAGAGGCCTCATTATGATAAATACTATATAAAACATTGTATGATGCTTTTCAGTTTACAAAGTCCTCTTAAAAACAT  
TACCTTATTTGCAACTCATAACAACCTGTACATTAGGCTGTGTTATTATTATTATCTGTAGACAAGAAAAACCTT  
TTATCAGGTAATGGAGAGGCATTTAAATGGAAGATTTTCAAATCCTTACCTGAGATCTGTTCACTCTTTTCTTCTTTT  
TTAGTTTGTTCCTTTTACTCTGTATCCTTGAATATGTAGATCTATAGTGAAAGGCTAGCCTATCAGTTGCTAGCCA  
TTACTTTACCAAGCTGAGCCTTATTTGACTCATCCCAAGTAATATAGGTGATAATGACTACATCATAGGATTGTTATGA  
AAACTAAGTGAGACAAAGCACGTTAAAGTGTCTAACACAGTACCATTTTATCCATCCATATGCCATATGGTGGCATAAT  
ATTCTAGGTTGGCTATTCTTAAATGCTATGTAAATTTCTTTCTTCTGAAATTAATAATACTTAATCCAAA  
TTAGACTCTAAAAAGGTCATGGTCAGTATAATTTATGAGGTAAAAATGGCATCAAAAAAGAAAGAAAAATGCAGAGTAC  
AGAGTAAAAACTGAGCCATTTTCTGGGAAGTGTGTGAAATTGAGTTTCTTAGGCTTTTCATGTCGATAATGCAAACTA  
AATATAATTTGCAGGTCCACAAAAGTAAATGATATAAAATTATGCTAAAATCAAGAAGAAATGGAATTAATGGATTT  
AAAAAATTATTGTTATTGCAATCTCTCAATTTTTTAAGACTCTGTCTCTGCAGTAATAAAGGGAACAGAGGGAAAAGTG  
GGATCCAAAATAGTTTATTTAGACTTGGAAATGCTTGCATGCTTATATCTCACTCAACATGAATACGCTTTAACTAATG  
GGGACTTAATGAAAACTTTATATTATTATTAATTGATTGTGGATTAAATAAATGAATTAATAAATGGGGTTAGAAATAGTG  
CGTTATTTCTTCTCTCTTGCCTTTATTCAGCTTTTCTTCTTGTCCATCTACAGTAGGAATGAATTCATCTCATAGA  
TAGATTTAGAAACCACTCCAGCAAAAAAATTGTTGTGCTCTTTGTGAGGGAAGAGGTTAGATTAGGATGAATTAATA  
TTTCAGTTGAAAAAATCTGAGCAAAATTCATTTAAGATATTTTGAAAACTCCTAAACAGTATATAAATATATGAAAGTT  
TAAACAATAATAAACAGTGGAGGTACATCTTTTGTGTTGTAAAAATGTAGTTGATCTTTTCTTTAATGTTTCTTTAT  
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TTTTCTCTTTTCCCCTAACCTTGACAAACAACTTCTTTTCAAATGTCCTAGATGCTTCAGGGATAGCTTATTTGAAATA  
GTTCTTGGAGATTAAATTTCTCCATGGCAAGCTGTCTTATCCGTATTCTGGTAGGTTATCTTATAGAAGAGGAAAAAGA  
AGGCAAAATCCTAGAGTTAAAAAATACAATAAACAAAAAGTAGTAATAACAAGTACAACAACAAGAGCTCTA  
GTGGTATACTGAGAAACAACTGCATTCTTTTGTCTTTTTTCTTATTTTCAATCATTATGTTGCATGAGGTACGCCAT  
ATGAATAAATATGTACTAACACATACCTAGACATACACAATCAGCCCTCATATTCATGATTTCTGCATCTGTGGTTTCA  
GTCAATTGCAAAATCTAAATACCTTTTTTAATCATCTGTAGTAAGCATGTAGAGACTTTCTTGTCTATTATTTCTTAAAA  
AAATACAGTGTAACATTTACATAGTATTTACATTTGTATTAGATAATGTAAGTAATCTTGAGGTGTTTAAAGTACACA  
AGAGGATGTGCGTAGGTTACATGCAAACTATGCCATTTTGTATCAGGGACATGAGCATCCGTGGTATTCACTGGAAG  
TTGTGAAACCAATCTCCACGGATACCAAGGCAAACTATATACATATATGTGGCTATGCGGCCTACCTACTCAGAAGA  
GGGTTACAGAAAGAGGGGCAGCATGGAGAGATTCATAATGTCTTGTGAGGGAGAGGGGAGCCTACAGTGAATGGTTA  
GTTAGAAATAGCCAATAACTTATTTCCAGTGAGGAATTAGAAAAACAGGGATTATGGAATTGGAATACTGAGGCATTA  
AAAGTCTTCTCTCTGAAATTACTATGCCAAGTGGAATCTGCTCTGAACCCCTATCCAGGAAAAACATTCTTCTTCAAA  
AGATGTTACTTTTTAACTTTGATAAGTCTTGATTAGCTCTTTTGGGTTTTAGCTGTTCTTTCACTATGTCCACACTTTAC  
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AATTCAAAATAACTGTTTGAAGAGCTCAGTGAATGTTGAGAAAAGACAGATAAAACAATTTCTTTTAAAAAGGAGAAC  
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TACAATGAACAAAAATGAAATGAAATAGCATCAACAGCAGACTTGATCAAGCAGAAAAAGAACTGTGTAACCTTAAACAC  
AGGGTTATTTGAAAAATACACAGTTTCAAGCCGAGGCGGGCGGATCACGAGGTCAGGAGATCGAGACCATCTTGCTTAA  
CGGTGAAACCCCGTCTACTAAAAATACAAAAATTAGCCGGGCGAGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGG  
GAGGCTGAGGCAGGAGATGGCGTGAACCCAGGGCGGAGCTGCAGTGAGCCGAGATTGCTCCACTGCACTCCAGC  
CTGGGCGACAGCGAGACTCCGTCTCAAAAAAAGAAAAAAGAAAAATACACAGTTCAAGGAGAGGAAAGAAATGA  
AAGGAAGGAAGAAAGCATATGAGATTTATGTGACAGCATCAAAAAACAATGTTTGAGTCATTGGTGTCAAGGAAGA  
AAAAACAAGGAGTAGAAAGTTTGTGTTGAAGAAATAAATCAGAAAACTTTCCAATCTGGAGAAAGAAATAAGTATT  
CAGGTGAGGAAGGTCAAAGATTTCCAATCAGATTGATTAAATAAGACTATTCAATACATATTACGATAAAATTCTCA  
AAAATCAAAGACAAAGAGAGGGTCTGAAAGCAACAAGAGAAAAAAGCATACAACACATAAGGGCATTTTAATATGTC  
TATCAGCAAACTTCTCAGCAGAAACCTTACAGATCAGGAGGACTTGGTGATATATTAAGTGCTGAAGGAAAAA  
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AGTTTATCATTGCCAGACCTGTGTTAAAAAATGCTTAATGGAGTTCTTCAAGCTGGAATAAAGAAATGCTAATAATA  
CAAAAACATGTGTTAATGCTAGTAACACAAAACATCTATAAATAAATACTCATTGGTAAAAAGTACATAGTCAAAATTA  
GAATACTCTAATATTGTAATGGTGGTGTTTAAATCACTTATATCTTTAGAAGAAAGGTTAAAGACTAAATTAGTAAAA  
ATAATAACTACAATAATTTGTTACAGGACATGCAGTATAATAAGATGTAATTTGTGACACCAAAATTCAAATGTGTTT  
GGGAGAATGAGGTAAAAGTTTAGAGTTTTTAAATTTTTATTTTGCAATCCATGTTAAGTTGTTATCAGCTTAAAAATA  
CTGTTAAAAAGTAAAAAGTGTCTTTTAAAGCCTCATGATAACTCAATGGAAAAATAACTTGTAAAAATTATGGAAACCT  
CGTCTCTACTAAGAATACAAAAAATTAGACAGCGGTGGTGGCGGGCGCTGTAGTCCCAGCTACTCAGAAGGCTGAGGC  
AGGAGAATGGCGTGAACCCAGAAGGTGGAGCTTGCAGGGAGCTGAGATCGTGCCACTGCACTCCAGCCTGGGCGAGAG  
GCAAGACTCAGTCTCAAATAAATAAATAAATAAATTTTATAAAGTGTTTTTTATAAGCCTCATGGTAACACAAAGGAA  
GACCCTATTATTGGTACACACAACCAAAATGCAAGGAATCAGAATACACTACTAGAGAAAAATCACTTAAACCACAAAGA  
AGGGCAGTAAGAGAGAAATAAACAAAGACTCTACAAAACACTAGAAAAACAGTGAACAAAATAGCAGTAGTAAGTTCTT

Fig. 6 98



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ACCCATAAATAAGCCCTGAATGTAAATGGATTAAATTTCTGCAATCAAAGACAGAAAAATAGATTTAAAAAAGACCC  
AATCATATTCTGCCCTCAAGGGACCCACTTCACCTGTAAAGTACACACATAGATCAAAGGTTAAATGTTATTATATTATA  
TATAATTATCTATAATATAAAAAATATTTATATATAATAATGTTATACAGATATAAAATTGAACACACAAATAAATAG  
AAAGATATTTTCATGTTTCATGGATTCAAATAATCAATACTGTTAAATTTCCATAATACCCCAAATGATCTACAGTTTCA  
GTGCAATCCCTACCAAAATATTAATGACATCCTGCATAGAAGTAAAGAAATTTAAAAATTAATATTAGAATTATAAAAA  
ACCTGAATAGCCAAAGTATTATTGAGCAGAAAGCACAAGCTGGAGGCATCACACTACCTGACTTCAAATACTCTACA  
AAGCTAAATTAGCCTAAGCAGCGTGATATCAGCATAAAAACAAACAAACAGATAGACCAATGGAACAGAAATACAGAGCC  
TGGAATAAATTCACACATTTGTAGCCAACTGAGTTTGTCAAAGTGCCAAGAACACACAATGGTGAAAGGGCAGTCC  
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TGGAGAACCTCATGTTAGGTTAAATAAGCCAGGCACAAAAGAGAAACACTGTATGACCACACTCATATAGAATCTAAA  
ATCATTGATCTCATAGAAATAAAGAAGTAAATGGTAGAGAGGCTAGACAGGTTGGGGGAGGGGGCTTGGACAAATGGTTC  
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ATATTGTATTATTGAGAAATGCTAGGAAGCGGGTTTAAATGCTCTCCCAAGCGATAACTATGTAAGTTGATGCA  
TATGTTAATTAGCTAGATTTAACTATTTCCACAATGTAGAATACTTCAAACATCATTTTGTATTGATAAATGCACTACT  
TAATTGACAGAATGTCAATTAAGAAACAAAACAAACCAGCTCATGTCTCTGCAATGATTTAGGAATCCCAAGATAA  
TTAATAGAGCCAAAATTTCCATCACATTTCTTGTACTGCCAGTTCCATGTTGGCTATATCATTCTGTGAGCAAGTTT  
CATTTTTTAACATTTAGTATGTTTACTCAGTAATCAACATATTTGCTTATAAGTAGTGACACAGATATTAGCCGCATA  
TATTTTTCTAACTGGTATCCTCTGTTTCTGCACCATTTATTGAAAAATCCATCTTTTTTCTAGAAATGATGAGTTT  
TTGATTGCTTAAATAGAAATGGAAGGAGAAAAGGAAAATAATTAACCTTCAGATTTCACTAGGTTTGGGTTTGGCAAC  
ATAAGGAGTATTCACCTTAGACTTCTGAAAATTTCTATTAAATCCAGGTTTATTGTTGACCAAGTGCCCTTTGAATA  
GTTTTCCCGTTAGTTGTAAATAAAGGATTTCTTACTCTGTGCTCTGTTTTCTCTTTTACCTGATATTAGAAATAT  
TATTGATAATTTAGTAATAATTTTATCATTAAATATCCCAATCTATTGCTTGATTGTGTCATCATATTGAGAGTTGAGAA  
GAATTTATTTTATTAATTTATTTTCTTAAACAAAGTGTTATAAAGAGAGGGTTAATAGAACAAAATGAAGAATA  
AATAGCTATTAAGAGGCTAAGTGGTATTAAAGACAGCTCTGTGGCATTGTTGAGGTTAACATATTTAAATGATACATTCA  
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GGTGTGTACAGATTTCCAGAAAGTCAATGGGGATGCTCTGGGGCTAGTGGGCCAGGCTTCTTCTTTTCATTTGTATTCA  
AAGCCAATATTTCTTTCCAAATCTTGCCCTTTCTTGTTTAACTCAAGGCTTGGCGTGGTAGGGGAGGTTGGGAATGG  
TGAGAAATAGTGCTCTTGAATGAAAGGTTGGAGGAAATAAGTTTACAGACTTGGCAGTGCTAGTTAAGGGCACACCC  
CATAAAGAAGTCTCAATATGGTTAACTAGTTTCCAGAGCAGTGCTACAACCTGAGCCTTGTGCATCCCTGAAGTGATGAG  
CACAAGTATGATAATCATCGGAAGAGAACATATATTGTATAATTTGGAATCAGCCAGTTATTGTCAGACTACCTTTGC  
TGTCTGTAGGATCAGACACACATGTGCTCTGCAATTTGGGTAAATGTAACCACATTTCTTATTATAAGAGGAAAGA  
CTGCTGGAAACAGCTGCTCTGGAACCAAGTTGCTCAGAGGAAGTGAGCTAACTTGTGTTTAGCTAAATGGTGTGTAG  
CTAAACCTACCCAGTGAAAAAATATGTAGAAATGGACTCAATACTTTCTCAAGAGATGAAAATATAGAGTAATAAAT  
AGGCAAGAAAAATAGGGATAGAAATGGAAAAAGTGAGAGAGAAATAACAATGGGAAAGGAAAGAGGAAACACGCTTATG  
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GGATAGTGGTAAGTGAATGATTTCTGTGATCCTCTCTAATGCTAAATAGAAATGAGAATGTGCGAAGCCTTTGTATCTC  
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TCTTTATTAATTTCTGGATGGTGAGGAAGAAGGGGACATGGGTGATAAAGTTAATGTAATGTAATATTGCAGATTGTAT  
TATTAATGTAAATTTCCCATTTGGAACCTCAAAGCCAAAATGGATCTGAAGTCAACTTATGCAGTCTACTTTTTCAGAAG  
AACAATTAATAGTATGAGGTAGAGACAACAAAATACCAGGTTTATGGAACACTAGAAAGTGGAAAGGACCATGAGAG

Fig. 6.99

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TTATTGCGGCCCTTCTCTCAGTGTCTATTGATTTCCATTAGCATCTGGGGTACTTAACATTTTCCTTCTCCTTCTACTT  
TCTTTTAGAAAAATCTATGTCAATTAATTTATCTGACATCTTAATCGATAATTCATTAAGAAAATCTTTTGTGCCCAGC  
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TCTCCCAAAAGTTAACTACTAATAGCCTACTGTTCCACAAAGTCAATTAACACATAATTTTATGTTTTTGTATTATAT  
ACCGTATTCTTACAATAAAGTAAGCTAGAGAAAAGAAAATGTTATTAAGAAAATCATAAGAAAGTGAATAAGATATTT  
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TTCAAGCCCATGTTGTTTAAAGGATCAACTGTAAATCTTTTAACTTTTCAAATGACGCTCATTACACAAAAGAAAATTTGG  
AAGTAGACAGGATTTATATGCAGCTATAATTTTAAATGGCAGCCACATCATGAACAAATTTCTCTGACATCTCATTCC  
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TATAAAGGATAGTACATACAGTTATGTACAGTACATAATCTTGTATGACAAGAATTACTGATAATAAGTGTACTGTT  
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CTCCTACTTACAAAAAAGTTAACCATAAAACAACCTCAGGAATGAGTTTCTTGAGGAGGTGTTCCAGAAGAAGGC  
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AAGACAGTGTATGTTGATGATCCTTATCTGTGTAGGCTTAGGCTAATGTATGGGTTTCTGTCTTAGTTTTTAAACAAAA  
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CGGTGGCTCACGCTGTAATCCAGCACTTTGGGAGGCGGAGGCGGGCGGATCACGAGGTGAGGAGATCCAGACCATTC  
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TATCACAAGCATACCCCTCAATGCTAGAGGAAAGAAAGAGAGACGAAGAGGGTGAGAAAGAGAGGGAAGGAAGGAAGG  
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CACCATTAGTTGAAATCATTGCACTATCTGAGAAGAAAGACCATGAAATCTAGGAAGTTTAAAGAGTTAGTTTTCGTGA  
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TCAACAGTATTTATGTTAGTGAAGAAGTTCAAAAAATCTAAGTTTCCAAAGGTAGGGGCACAGTTAAATGAATTATGA  
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ATTTTTCAAGTGTTCAGAAATGAACTTTTATAATGAATAAGTATTTTAAATATTTTAACTGATTTTGTATTATAGTAG  
TGATAATCCAGAAGTGATTATGTTTTTATACAATAGACTATGGCTTTATATGAAGAAATGAATATAGTCTAGTATTGTTT  
TTATTATCTAGGAATATACATGTAAGTGAAGAATTTATAGTAAGTTTAAATATAAGCAAGTAACTGGGACTTCTGGAG

Fig. 6.10c



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GAAAGCTCACTCTAGGGGAAGCTCTCAAATGTGTTTTCAATCTTGGATTCCAGTCAAAAAAGACATGAGTTACTTGGGA  
TTTAATAACCAGATATACATTCTCCTCTTAGGACTAGTGAAAAATGGGCACTGAGTGAGCTTGGGCACAGACTAATA  
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CAAGTGTTCTCTTTCCCTTACATCCTTACTAACACTTCTTTTCTTTTGTCTTTTGATAACAGCTATTCTAATAGATGT  
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TGCATGTCTCTTTTGAGAAATGCTATTCAAATCCTTTGTCAATATTTAATAGGGTTATGTGTTTTCTGTGATCTGA  
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CTGGGACTACAGGCGCCTGCCACCACGCCAGGCTAATTTTTTGTATTTTTTAGTAGAGATGGGGTTTACCATGTTAGGC  
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CAACAGCGTACTAAAAATACTAAAGGATGATATACTATGATCAAGTGAGATTTATCCCTGGAATGCAAGATGGTTCA  
GCATGCTCAAATCAATTAATGTACTACATCACATTAATGGTAGGATTAATAAATACATGATCATCTTAATAGATGCATC  
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CTACATATAATAGAGGCCATATTTTGGACAAGCTTACAGCTAACTGAATACTCAGTGATGAAAAGCTGAAAGCTTTTTTC  
TATAAGGTCTTAATCAAGGCAAGGACATCCATTTTGGCAATTTTGTTCACACAGTAATGGAAGTCCTAATCAAAGGA  
ATTAGGCAAGAAAAAGCAAGGCATCCAAATCAGAAAGAAAGTAAACTATTTCTTGGCAGATTACATGAT

Fig. 6. i01

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CTTATATGTAGAAAACCTCTTTCTACAAAAATCTGTTGAAACAAGCAAATTCAGTAAACTTGCAGAATATGAAATCAA  
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CCATCAGACCACTGAGCATAGATTTCTCTCTGAGAGACACTTTTTAAACACAAAAATTACCTATTTATCTTGTGTCATA  
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GGTAACTGATGAGGTAACAGACCAGAGACTGAGCCTTAGTTTGGCCAGCTAAGAACTATCAAAGCCAGTCTTCCCAACTC  
AGTCCATGATCTCTTACTATTTTACTTTCAGCCCTGTAAGATTTCATGGTTGTATTTCCTTCCATATAGAATCTAGGAATA  
ATAATTACTAATTTAGAATATTATATAGTCCATTTTGTACAAATTTGCTAATTTGTATAGTACTATCCTAGTACTAGTA  
TATATAATTCTATATACTAGTCATATATACTAGTATATAGAATTATATATACTATATGTATGTATATATACATAATAT  
ATATAATTATATACATATGTATTACATATATGTATATATTATATATACTAGTATATATACTATATATAACATATGTA  
TATATAGGATTATATATAAATTATATACTAGTATATATAATATGTACTTGTATATAATTATATCTACATATATACACA  
TATATGTAGTACTATATCTACATATACTATATATCTGTATATATATAGTACTAGTATATATAATTATATATACATATAT  
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CAAAGTCTTTCATTAAATGATACCAGAACATAGGATCTACTGAAATTTCTAAATGGCCAGTTGGAAGAGGAAGGTCTATGT  
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CACAGTTTCTTAAACATAGATATCTCTCATATATTATCAAACACTTATGGTGAAACACTACATTTTGTTCATAGGAGT  
TCTCCATAGCAGAATTCCTCCATCTCCCTTTACTTTGCCCTGAAAAATCAGCACCCCAAGGAATTTCTTTATCTTTCAA  
GACGGCAACATATAAATAAGCATTGTAGTTTCCCATACAGGAATTTTGTCAAGTCTGGCTTAGAAAATGGCCATGTTT  
TATTCAAACCTCTTTGAATTTCTGGTTAAATAAAAAATGCCAACTATGCCCTTTTTCATTAAATAAGTCTATCTTTCTATTA  
TCTAAATGTATGTCTACTATAAGTTCCCAATGGCAGCTATGCTTGTGCTTAGGGATTGCAAGATGAAGGTTAACTA  
TTAACGACAGTGTCTTGAACCTGAAGTTATTAGAAAATCTTTAGGGACTCTTGGACTCTTGGAAATTTATGTACAAAA  
TTATAATGACTCATTGTGACAGTCATCCCTTGAATCTGTAGGGGATTGATTCCAGAGCCAAATACCAAGACTGCAGAT  
ACAAAACCCAGTGGATGCTTAAGTTCTTACATAAAATGGTATAGTGTAAATTTAACTATATTCTTCCATACACTT  
TATCTCTAGAATCTGCTAATAACTAATAATGTAAATCTATGTAAATAGTTGTTATAAACAATGATTTTTATTATTT  
ATTTTTGTGGTTGTATTGTTACTTTTGTGGAATATTTTTAATCCCCAGTTGGTTAAATTTGTGGATGAAGAACCTACTAA  
TATAGAGGGTCAACTGTACATTCTCTTGGGAAGTATATTAGAGCTTTTATTAGAGACTTAAAGGAACCTATGTTACT  
CCCCTGCCCCACCCCAAAAAAGTTAGGAACCTACTGCTTGGTGGGTAATAAACTATCCTTGGAAACATCAGATTCTTT  
AGATACATCATAGAGAATTGGCATCTAAAGAAATATTCTGTGGTAACAGCTTCCAAGATGGCCTCCAGTGATCTGAC  
TTTCTGGTATTGAGATTTTGGGTCTCTCTTTCAAATTTGTATCAGGGTTGATCTCTGTGGCCAAGAAATTCAGGAG  
GAGTTATGATGTGCCACTTTGGAGGTTAGGTTATAAAAACTGTGGCTTCTGTCTTGGTTACAGTTTCTCTTCTCCAA  
CACTCACTCTGGAGGCAGCTAGCTGTCAACTCACAAAGACACTCAAGCAGCTATGGAAGAAGGCCACATGGTAAATA  
TGGAGGCCTCCAGCCAACAGTCAGCAAGGAAGTGAAGCAAGTCAACAACCATGTGAGTACTCGAGAAGTCTTCTCTA  
GCTCCAGTTGAGACTTGCAAGTACAGCAGCCTCAGCTGGCGGCTTGACTGCAATCTCTTGGAGACCCCTAAGCTCTCT  
GAATTTCTGATCTTGAAGACTGTGTGAGGTAAGAGATTTTGTGCTTTAAGATGTACATTTGGGGTAATTCATTA  
CACAGAAATAGATATCTCATTACATTATCTTGACTGGTCAATGATTAAAGAAAGTGAATGTAAGAAATAAAGTGT  
TTTAATGCTGACCTTCCCTGTTAATCCTAGAAAATTAGAGTTTGAATAATAATGTCATAGTCACTATTCTTTAATCT  
TGTGTTGTAATAATGAATGCAGCGTGGCCCATTCACCGCCAGCACTTGGTCACCATTTGTGATCTACACAGCAAGAAGCA  
GCCTAACGACCTGTCTGTTGAAACAAACAAGTTTCTTTTAAAGTGAATTTCTTTGTTTCCATTTATAAGGCACCACTTT  
CAAAGGTGTTCTGGGAAACCTTTCTTGTATTTCTTCTAAGCAAAATCAATTCAACAGAGAGTTCCAGCTTTGCTGTGA  
TCAATGGGGAAGTACCAGTGTAGCTTTCTTTTCTTCTAAGCAAAATCAATTCAACAGAGAGTTCCAGCTTTGCTGTGA  
TAGTTTTGCTGCAAGTAGTACTTGTCTAAATGGTGGCTCATTGAAATGGTGTGTTAATTTTCACTCCCACCAACA  
GGGTACAAGGGTCCCTCTCTCATATCTCCCAATATTTATCTTTTTTCTTCTCATAATAGCCATTCAACA

Fig. 6.102

[illegible]

Fig. 6.103

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TCCTTCTATGTATTGTCCATTATAACTTTGTAATTTCTTTTGGGCGAGGATCCTGTGATTGGTAAATTTTTGTTTTTCCA  
TGCAGTTTCTAGGCTAATGCTTTGTCATGTGTAGGTACTCAATGTAAAGGTACATGTTTTAA 3AAAGGACCCAAAATT  
CATGACTTGCTGTACAAATGATGATCAGGGTTTAGGAGAGGAGATATAGACCAGAAATCTAGTTGTTGTTTTGAGTTAT  
TATTATTACTTAAATTATCCTATATTTTTAGGTTAAAACTCATTGAGCAAAATCATTATCTTGATGAGAAATCAAGAGT  
CAGGTTAAGTAAATTTATTTTGGTTAGATGTCTTCTAAGCATCAGTTAAGGATTCAAACCAAGGCCTCTCCCATGTGAA  
AACATATATTGTTTCAGCTTATCAGGATTGGTTAGATTATCTCCAAGATTATGTCTATTTAAATGGCAGTTATTGCAGA  
TAATATCAATGTCCTAGGTCCACAGGAAGGCAAGAAGTAGACTTAGCAGTAAGTTGCTGAGCAGGAATCTGAAAAGGG  
TGACCAGGATCAGGTGAAGCACGTCCAGAGAGTAAAGGGGGTAAGCAAGCTCTTGTTATTAGCCCATATGTACTTACCC  
TGGGCTCACCGAAGAGTCCATAAGCAAGCTTGCTGTGGCTGCAACCTAAGGATTGGAACAAGTCTATAATCCTTCAAG  
AGCCAAGTGTGGATTCTCCCTTCTACTCTCTGCCTCAGTATATTTTCCATGTTTTCTTACTTGTTCTGTTGCTGGAAG  
TTTCTTCTTTTCCAAGAGATACTCAGTTTTAAAGAAGCCACAGGTGTCTTTGCCAAAGCTTGCTCTCTGCATCCTGTTA  
CACTCTTAGAGAAATCCCCTGATGACGTCAATCAAGACAGCCTACTTTTCGTAATTGCTGTGGAAGGGGCAGAAGGTCCTG  
CCACTACATTGCTTCTGTCAACCCACCCCAAGATGGAAGAACAGGTTGTCTCTGAGGAATTTTGATTGGGGCACATT  
GATTCCAGTCTCTCTTACTGGAGCTTGAAATAGGGGGGCCAAATTCTCTATAAAAAAGAGTATGAACTGATATCCAA  
AGAGACACACGATGAGAATCTATGAACCTCCACGAAAAAGAGCTGATAATTATAATTGTCTTCATTCTTGGTAGCTTTC  
TAGATGGGTTCTAATCCCGCAAGGGGCTTAGTTGCCCTTCTAGCTTTGGCGTCTATAAAATAGTCTTATAACCTTTTAA  
TAAAGGTTTAAATAAGGCCTAAGCCACATGAGTGAGTTTATACATTCAAACAATCTCCTAAGTGTGAGAGTTAATTA  
ATTTTAAACTATTCTCGAAATTCAGCCTTAATTTGCTTTTGTCTTAAGCTGGGTCACTAATCTGTGCTGAGGACCCATT  
ATCCATTCTTTTGTAGGTTCTACAGTTTACCTCTAGGGTACATTTTCATAGTCTTAAATGTCTCTCTGTATAACTGATT  
ATTTATGGAATTTTCATGATGCGTTAAATACTTTGGCTGAGTAGCAACACATTTTCATCTAATCTTCAATCCACAACA  
GTACTACTGGGCAACATTTTTATTCTTGGTGGATACAATTTCTTTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTCTCTCC  
TTTTCTCTCTCTTTCTTTTAAATGTTTGTGATATCAGGATATAAAGAGCCAGGTAGAAGAGCACAGAATTAGAAA  
CCAGAAAACAGTCTAGTCTATCTCATTCTCTCTGGCTTCACTTTTACCCTTAAGTGAGGAGACTATACCCGAGTTCC  
ACCTAGCTTGCAAATCTATAATTCAATTATTCATCACCATTCTGAAATATACCATGTAATTATAGAAATTAAGTAGAA  
AATTTTTGAAATACACATTTCCCAAATTTATTGACCATGGAATACTTTTTAAATAATTATATATTGGTAGAACATAT  
ACGATAGCTTCATGGATATAATATGCACCTTGATTAAAGAATACAAAAAATGGTCTGCAACAATTAATTGCTTCAAGAA  
ATGATTAAAAAATTCATTCTATTTCTAATCTAATTTACAGGACCAAAACAATAATACAAATTAATAGATTAAGTCATT  
TATTTTTATTAAGTACATAAAAAAGACAAAAATGGATGAAATGATGACAAGTTGCAATGAGCAGTGATGATTAA  
GAGGCAGTGTATACCAGTAAAATTAGTTGGTAAATACTACTAATAGATACTTAGCATTGACATTAATAATATTTAT  
ATGAAGCTTTGACATTTAATCTACTTCATGCATTATGATACACCCAATCACTTGTTTTGAATTTTCAATGTGGA  
TTCTTGCAATAAACAATTATAGATGTGTGTTTAAATATATTAATATATTTTTATAGAAACAATGTTGTTGGTAATTT  
TTCTTCTTAGACTACTCAGTATCTTATAGTTTGAGAAAAACAGACCTATCTGAACCTAGATACTATATATGTTTCCAAC  
GAGTATGCTTATTTTCCCTTCTTTTCTCTATTGCTCAGTGCCTTACATGCATTATTATTGGGTTATATATTGAGTTA  
TTCTCTCGTTGGCTTTTGTATTCTGTGGCATTACATATCTTTGATAGCAGTAAGTTTGACACTCAAATTTTGTAGAAGT  
CAATGGCAGTGGTCTTTTATAGGTTTAACTTACCTGACTGCATTATATCCCTTGACACTCAAATTTTGTAGAAGT  
TTGAAACTACTGTATATGATTAACATATAATGCCTCCTATTATGAACCTTGAATATGCACATTAAGAGATTATAAGTT  
ACAGTTAATCAATTTGTTTCTTTTATAGATCTTGAGAAAAACCTGATGAGTGTAGCATTGCCATTTTGTAACT  
AATCCTTCATGTAATGAACCTAAGCTTCCATTATTGTGAATGAATTAGTCTATTTAGGAACCGCTTGGCTTAGCGGTG  
AACTGTATTTCTACTTAAAGGAGCCAAACATTAGGAAGCACTGTAGCAGTGTACAGCAGCACTTCATCATTGGA  
TTTTAAATTTCTACCTTCAGGGATCTTAGAACCATCTAGCTTCCGAGATCTCACTGTGAGTACTGGAGTGAGCAGAGT  
TGTAACAGGATGGAGAGATTGCTAATTTCCAAAAATGGGATTCTGAGTTAAAAATATAATCTGCTTTCAGCTAAAAAC  
AAAAAAACCCCAAAAAACCAACAGCCCTTTATGACACAATTTCACTATCCTGAACGCAATTTTATTCTATTGATTATA  
AACAATGTGAATGTAGATACCAATATTGCAATTATGACTAATAATTGGAGGCAATTTTATAGTAGTTATATATCAGT  
ATATATATTTACATTTTACTGATATTAATGACTGTGGCTTTTAAATAGTGGCCACAGAAGTCACATAGCATGGTTTA  
GTGAAGTTTGGTTTACATTTGTAGGCACTTCAGAAATATCATCTTTGAGAACACACACACTTAAGTTTCAAGTGAAGC  
GTATATAATTCAAAGAATAACATAAGCAATGATTTAACTTCTATGTATGTTTCAGTCTGCCTCAGTGTAGCAGCAGG  
AAAATTATTTCTTTACAATAATGAAAGACATTTCCAGATTCAAAAAAAGGGAAAAATAAAACCATGGAATAATATAT  
TTGGAATTACAGGGCTACTAGCAATCTAAGTGTGTGGGAAATCTTGGTAAATAGTTTCAAGTGAATTTATATAGATAGAA  
GATTGATTGAATAAACCTACTCCAAGCATTGATATGCCACAGCATTCTTCTTGGCTGTGTTCTGCCCAATATTTTA  
ACAAGGGGTTGCATCAAAACAGAGTGTGCTGATCAACTCCTGAAAAATATTTAAAGTTAAAGAAATGCTAAGCAAAA  
AGAACAAAGCTAGAGGCATCATGCTACCCAACCTTCAAACCTACATGCTACAGGAATACAGTAACCAAAACAGCATGTTAC  
TGGTACAAGAACAACACATAGACCAGAGAAAAAGAAATAGAGAACCAGAAACAAGACTGCATACCCACAACCATCTGT  
TCTTTGACAAACCTGATAAAAAACAAGCAATGGGGAAATCATTCCCTATTCAATAAATGGTGTGGGACAACGGGCTAGC  
CATATGCAGAAAACCTGAACTGAGACCCCTTCTTACACCATATACAAAAATAAACTCAAGGTAGATTAAAGAATTCAAT  
ATAAAAAACCAAACTCTAAAAATCCTGGAAGAAAAATCTGGGCAATACCATTCAGGACATAGGCACAGGCAAGATTCA  
TGACAAAAATGACAAAAGCAATTGCAAAAAAAGCAAAAAATTGACAAATGGGATCTAATTAACATAAAGAGCTTCTGCA  
CAGGAAAAGAAAATATTAACAGAGTAAACAGCCTACAGAAATGGCAGAAAATTTGTTGCAATCTATCCAGCTGACAAAGGT  
CTAATATACAGCATTTTAAAGGAACCTTAAATAAATTTACAAGAAAAATACAACCCCATTAAGAGTGGGCAAAATACAT  
GAACAGACACTTCTCAAAGAAGACATTCATGTGGCCAAACATATGAAAAAAAATCACTGATCTTTAGAGAAAC  
CCAAATCAAAACCACATGAGATACCATCTCACACCAGTCAGAATGGCTGTGATTAAAGTCAAAAAACAACAGATGC

Fig. 6

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TGCTTATGGAGAAAAACGAATGCTTTTACTCTGTGGTGAAGGTGTAAATTAGTTCAACTATTGTGGAAGACAGTGTGG  
CAATTCCTTAAAGACCTAGAGGCAGAAATATCATTTAACCCAGAAGTCCATTACTGGGTATATACCCAAAGGAATATA  
AATCATTCTGTCTATAAAGACACATGCACGTGTATGTTTCATTGCAGCACTGTTTACAATAGCAAAGACATCTAAATGCCT  
ATCAATGACAGATTTGGTAAAGAAAAATGTGGTACATATACACCATGGAATTATGCAGCCATAAATAAAGAAATGAGATCC  
TGTCTTTTGTGGGAACATAGATAGGGCTGGAGGCCACTATCCTTAGCAAATTAATGTAGGAACAGAAAAACCAATACCA  
CATGTTCTCACTTATAAGTGATGATCAGAACGCATGGACACATTGGGAGTGGGGAAACAATACACACTGGGGCCTTTCA  
GAGGGTAGGAGGGTGAGAGGAGGGAGAGGATCAAGAGAATAGCCAATGGATGCTGGGCTTAATACCTGGGTAATGGGAT  
GATCTATGCAGCAAACCACCATGGCACAATTTACCTATGTAAACAAACCTGCACATCCCGCACATGTACCCATGAACCTTA  
AAGTTGTAAAGTAAGAAGAAAAAATTTTAAAGAGCAGTAGCGCAAGTACAGAAAGACCTCATTCTCATAAAAAATGGTA  
CAGCCCCAATAACATAGGTGTTTTTGTGTTAGCAAGGAATAAGAAAAGAAATGGATATTGGGTGGATACCTAATAGTAGTC  
TTTGTGCACTGAATCGAGCAGATATAATAAAAAAGGAATGTGTGACAATGCTATGTTTAAAAATAACATGATACCCA  
GCACCTTGGTAGGCCAAGGAGGGTGGATCACTTGAGGTGAGAGTTTCGAGACTAGCCTGGCCAATATAGTGGAAACCTTG  
ACTCCACTAAAAATACAAAAATTAGCTGGGCATGGTGGCAGACACCTGTAATCCAGCTACTTGGGAGGCTGAGGCAGA  
AATTACTTGTACCTGGAAGGAAGAGGTGTCAGTGAGCTGAGATCAATGCCAGTGCCTCCAGCCTGGACAACAGAGCAAG  
ACTTCATCTCAAAAATTAATAAAAAAAGATAGTCCAGAAATACAAAGACAAATCTAACAGGAAGAAAGGTTAATT  
TCTTATTTAGGCTTTTAAAGAAAAAATTTTAAAGAGCAGTAGCGCAAGTACAGAAAGACCTCATTCTCATAAAAAATGGTA  
GTTAATTGCAAGTACTGTATCAAATATGTGATAAGTCTATCTAAAAATCTTCTAAATTGAATCTTTCTTGAGGGAAAGA  
AAATCAACATTAATTGAAATATTATTGCTCAGACAAGAAAGGTAGCAGTAGTTCATTGTGCTCAAACAATTGTGAGACC  
ACCTATGGAATATCCTGTACAATGAAAAATTAACAAGTTTCCAGAGTGTGTTCTTCAGAGCAGTAGCTCTTAGAACATT  
AATGATTATTATGAGAAGGGAAGGTCTATTGTCAAAGAAGCTTGGAAAGGATGAGTTGTTAAGCAAAAGGTGTCTTTTG  
AGCAGTACTTTTCATGGTCTTTAATATACCAATATGCATTGCAGCTGTCCAAGACAGGAGGCTTAAAGAACCCCTGAA  
GAGAAATGTCCCACCTTAGTGCTCTGAAAGGATAGTCACTCTCTATAGCTATTACTTTTCTTCTTCTTCTTCTGACC  
TTTCTTCCAGCACTATGCT  
TTCTACAAATGCATTGCTCTGTCTGTATAAAAAATCATTTTAACTTTGCTTCTCCATCCAGCTACCTTCTTTTTTTTACCC  
TTCTGTACTGCTTCTGGTATTTCGATGGTTTTTCTTTTCCCTTCCCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT  
TAGCTCATCTTGCACGTAGTCTTCCATGAGATATGCCTGTAGGCATGCACAACCTAGAGATGTTAAGTAGAGGCAGAAA  
GAAAAGAAAGACATCTGGCAATTAGATCTGACTTTATCCATTCTGGCTGTATAAACAATAAGCATACTAGTACTGCT  
TACGAACAATAGAAATTTATCTCCCAAAGTTATGGAGGCTGGGAAGTCCAAGATCAAGGTGCCAGAAGATTGATGCT  
GGTGAGGGTGTGCTTTCTGGTTTATAGTTGGCACCCTTATAGTTGTGCTTACATGGTTAAAGGGGCGAAGGGTCTCTCT  
GGACCTCTTTTATAGGGCCACTATGACATCTCAAGTGCCCATCTCAAAATATTATCACATTAGTGATTAGGTCTTAG  
AATATACATTTTGAAGGGACACAAACATTTAGAGCATTCCAAGGTCTTATTTGTTTTTTCAGTGGTTAAGAGTTTCGTC  
GGGAGGAGGAGTAGAATTATGTGAGCTTACTTCAGAGCAGAGTTTACTAATCTTCTATGTGTGTGTATGGAGTGGGTGT  
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CTGCATCTCTGGGATTTAACTAACCATGGATCAAAAACCTTAAGAGAAAAGTTTGCACTGGACATTTACGGATGTTTTTT  
CTTGTCATTATTTCCTAAGCAATACATTATAACAATTACTTACATAACATTTACGTTATATAGGCATTACAACAAATC  
TAGAGATGATTTAAAAATATAGAGAGGATGTGAATGGGTATAGGCAACACTATGCCATTTCTATCAGGGGCTCTGAG  
CATCCATGGAATTTTGGCGTCTGCCAGAGGCTCTGGAAGTAACTCTCCACGAATACTGTGGGACAACTGTATAATAGTTT  
TTTGTGTTTTTGTGTTTTTGGAGACAGGGTCTGCTATATACCCAGGCTGGACTGTAGTGGTGTGATTGTAGCTC  
AGTGCAGCCTTAACTCGCAGTCTCAAGCGATCCTCCTGTCTCAGCCTCCCTAGTAGTTAGGACCACATGTGTGGGCCA  
CCACCTGGATCATTTAAAAATTTGTTTTTGTGGAGATGGGTCTCTACAAAGAGATGTCACTTAGGTAGGTCTCAAAC  
TCCTGGCCTCAAGTGATCCTCCTGCCTTGGCCTCCTAAAGTGCTGGGATTACAGGCAGGAGGTACCACACTCAGCCTGT  
ATAATGTTTATAAGCACAAAATAAAATTTGTAAGTAAAAATGAAACAGTTGTATTAAAACAAATTATACAAATATTA  
AAATAAAAATTTGTGATAGTTATATATGTGCATCTTTTATTAATGATTAATATCAAGATCCAGCAGATCAGATATCTA  
ACATACTTAATTTTGAAGTGCTTGAAGAAGTCTAATGAGATAAGAAGGTATCTATGATTTTTACTGGCAACAAAGTCA  
CAAACCTACAGTGGTTTGGTAACCTATATTTCATAATTGAAGAAAATGGTATTTTTTTCAGTTACAAGTTAGTAAAAATACAGA  
TGTAACCTTGTCTACAAAGTTTACCAATCTCCTGAATCTTTGTGGACTCCAGGTTAAAACTACTAAATGGTAGAGTA  
TATAGTTACAAGGAGTCAGATTTAAGCTCATTTTAAAGTATATGTATTATGTATGTAAAGCCTTAATAATTAAGATGT  
CCTAGAATGAAAGGATTTTCTCACAAGTAGTGATCTACCTGTTAATGGAAACGTCCAGTTAGCATCTAGAAAAATATT  
GAGGATGTTGTAGTATAACACTAATTAATATTAGCTAGCATCTACTGAGTGCTTGTGTGTTTTATGCACTGGGTAGG  
AGCAATTTTTGCAATGTGTCTTTTTTTTTTTCATGATAGTTACGTGAGGTTATCTCTGTGTCATAGATAAATCAATTTAGGT  
TTTTGATATTTGTTAGAACTTGACTATAGCCTGCAATCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCACTTGAACCC  
AGGAGGCAGAGTTTGAATGAGCCAAGATCACACCACTGCACTCCAGTCTGGACAACAGAACGAGACCCCGTCTAAAAA  
AAATTAATAATAATAATAATAAAGTTGACGGCAATAAGTGGCAGAGTATGAACCTTAACCCATATCTAGGTGTCTCC  
AAAGCCTATAATTGGAGAATATTTTGATAATAATGTAGGAGAGAGATTGGTGAGAGAATTAGAGATCACCTTGTTTCATC  
CTCTTTATTTGATAGATATGAGGACACTGAGAACTCAAGAAGTTAGGTGACTTACTCCAGGTTACACAGTTTATAGCA  
GAGCCAGAAATTGGACTTTGATGCCTTTTTATGTGGAACATGAGCTTTTATTATTAGCTCTTCTGTTGGAGGTG  
GAACAACCTGAAGAGAGAGGCAATGGACTACATATGTTTGGAACAGAGTGTATAGTAATTTCTATTCTATTCTAG  
ACAACAGGGATATGCCTGAAAGTGCCCTTACCCTATGTCTATGCAATTTTACCAATGAACACAAAATTTACTTGAGTAAT  
TTTTTTTTTCTCGAGGTATAGTCTCGCTCTATTGCCAGGCTGGAGTGCAGTGGTGCATCTCGGCTCACTGCAACCTC  
CGCCTCCTGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCTACTTGAGTAATATTTTAAATGTAACCATAGTGAAGTGT

Fig. 6.105

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CCAATACTAAATTTGTGCCTTTGATAATATTATATTATGAATAAAATATGCTCTTTTAACCATGTCCTCATCTATT  
TTACCAGAAAGTATCTTGTGTATTGTCAATACAAAGTATCTAATGCATGAATGACTGAGTATGATTGTCTGGTTTTCTT  
TAATCACTACTTACACCAAATAATTGGGTATTTACAATATACTGATTCTATTATTTTTTACTGAAATATAATTATAGTT  
AAATTTACCATTTCGTTAACAATGAGGGAAGAAGTTGTCTAGATTAGTTCAAAAACCAACATGTAAATTTCTTCTGGAAT  
ACGGTAATACATAAATGAATATGCAATAAAAGTGTGAAAACAATTTTTAAATAAAAACAGTTAAATTAATTTCTAAAT  
ATACAGGGATTACACTAACAAATTTTCTGAGTATGAAATTTAGGAAGCATGCTTTTCTAAATGAATGCTTTTAAACA  
TTATTTATAAACAATGTTGTTTCTAATATTTTATATAGCCTACATGCAATAGGTGCTCAATAAATACTCATTAACTTA  
GTTCAAGATGTTGACAGAACACATGGTTTTTGTCTTCTTACTTTTCTAATACCCATTAAATAGTAGAAAACTAA  
ATCTGTATAATGCACAACAATAAAGAGAATGGGGAAAAGGCCATCAGTGGTAAGAGATTTTATCGAATTTCTGGAAGAT  
GAAATATGAGTGAAGTGGTGTGATTACTGAAGCAAAACAAAGTCAATTATTCAGAGAATATTTGTAGAGGGAGCTACA  
CCCAAGAAGAAGCCCTAATAACATGGCAGAAGCTAACAGGCTCCAGTTTCAGATAAGCCAATGCTGATGGACATTGAA  
ATGAGAAACATAGATGTAATCAGCAATTTGATCAAGAGCATGTGCACACTAGTTTTGTCTGCCCAATGAGCCACTTTAAAT  
CATAATGGCTTAAAAACAACCATTTATTTAGTTTACTATTCTGCTAGTCCAGCCATTTGGCTGGGCTTATATGGGCATA  
TTCCTGTGTCTTTGTCTCAACCAATCAGTTGATCAGCTCTGCTTCTGCAAGTTGGTTGGGTGCTCAGTTAGCAAGATAGGG  
GCCACTAGGCCTTGCAAATCTCATCAGACTAGTTTGGGATTGTCACTTAGTAGAGGAGCAGGATTATAAGAGAAATAAT  
ATAAACGCAAGATCTCTTAAAGTCTAGGTTTAGAATTGGCACACATTAACCTTCATTCTTGCATTGCTTGACTAGGTTAT  
AAGACCAGTCCAGATTCAAAGGATATCGCAACAGACTGTTATTTGTTGATGAGAAGAACTACAAAGTCACATTGCAAAA  
GGGTGGATACAGGGAAGGTATAAATCTTGAGCATTGTGGGCTCAACACAATGTAGAGGGCCAGCTTTATCCTTCTCT  
ACTTACCACATCTGTTTCTCAGCCCCATACTAGAATCAGTGGCATGAAGCCAGGTATTTACCATTCACTTCAACAGAAGCG  
AAAACAAAGCAAAAACAAAGTTTATTTAATGAAAACATTAAATGAAAGAAAATAGATAAAATATATTTAGGAAAATCTCT  
TGGAAAGAGTATATTAATAGATTAGAGAGTGTGAATGAGGTTTTGGAAAACCTTGAGGGTGTAAATTTGATGCTAGAAAC  
ATCCTTCTCTGAGTGGCCTACTAATTCTGACATAGGAATCAGAGAAAAGGAAATGTAATCTTAACTATTTCACTTTGCA  
GAAAATAATCTTTACATAGTCATAAAAATGAAAACCTGTTTATAGTTTCACTTTAGAATTGCTCCATAGACAAGTC  
ATATAAGTCTTAACTGTGTATCAGTGTAAATGTTTTCAAACCTTAAACAATATTAATAACACCAACCTGGGACCCATAGGCA  
CAGACATATCTTTTACATCTTTGAAATTTAAAGCTCAATGTGATGGTCTGTGTCTTGACTCTATTTAGCCAAACCACTG  
TGTCATCTTTTACTAATACTCTTTTCCCCATGATAGTAGCCCCAGACAAGTAAGTGGTCTAGAGGCTCAGTGGATGTT  
CAGTGACAGTGAAGTCAACCCCTTTACTTTTTCAGATACCAACAGCTGTTTTTAAGAGTCTCTTGCCATCTCTGCC  
TATGACTTTGTGTCAGTGAATCAGTTGAGTTTCATGGGAAAGCAAAATAAAGGATGGTCTCTGTTTTATAGACATAGCCCT  
GTCTTAGAAATCTAATCTCTCTTATCACTCTCATCTACAAAGACTGTCAAGGAAATGTGTCTCTCTGCCCATGGAGA  
CAGATTGGGCATCTCACATGAAAAATATGTCTTTGAACCTTGCCCTGAGAAATCCAGTAACCTTTTTTCTCACCAGGAT  
ACTTTTCTACTGTAAGCTTGCCAAATATTTGGTAATCTCTAGAATAGGAACCCATCTCAATCAGCAGTGCACACCATCCT  
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AGTATCAGAAATTTATTTCTCACAGTTCTGGAAGCTGGGAAGGCCAAGGTCAAAGCACCAGCAAATTTGGTGTCTGATG  
AGGGCCCACTTTCTGGCTTATAGATGGTGCATTCTACCTGTGTCTCACATGGTGGAGAGACAAGTCAGGTCTCTGG  
GGCCTCTTTTATAAGGGCACTAATTTCAATCATGAAGTTCTCTCTTCATGATATAATCACCCCCAGGCCCTACCTTC  
TAATATCATCATTTGGTGATTAGGTTTCAGCAGATGAGTTTGGGGGAATACATTCAAGGCTGCAGCAAGGTCAAAG  
AATATTGCATCATTTTGTCTTTAGAGACCTTTCTGTTCTAGCTACATTTTGATTATCTATATGACACAATAAAAAAGAAA  
GTCAGGAAACCTAAGATCTTATACTTCAATAGAGTTTTTATAGGACAACATTGATTAATGGCTACAGTTAATACAAAA  
CTCTAACAGCAGCAATCAAAATATTTCCATTCATCACACTTGAAACTTGCCCTCAGGTCTATGGTATTTTGAATTTT  
GTTGTTGTTTTGAGAGTGACATGAGTGCAGGCCAGCTTCATGGATATACAACTATACATTCAATGGGTTCCACACC  
TAGATGGGCTCTTACATCATGTAGCTGGTCTACCTGGGAGAGAGCTAAAAATTAAGTTGCAATCAAAATTACTGAT  
CAGATACTGAAATTAACCTGAAAGATGTTGAGAACCAGAGAAATCTCAATCATGTTAATAATACTTTTCATGCTTT  
GACATTTCTTTTTCTGCTCTCTCTACCTGTAGAACTTTTCAAGTCCATTATATACCATTGTTGGCCCTTTG  
TTTCTCTCTCAAAGACTTAAAGAAGAAGTTATGATTAAGCATATGAAATATGCATACCAGGTTTTCTATAAAGATTCC  
TCGGCATCTCTGCCAAGCTGTATATGAGCACTTGCTGTTTATATAAAAAACATATTTTAAATAAATTTTGTGTC  
TGTCTAAGCAAAAAGCACATATTTTAAAAATCTGGAGTTTCTGTTTCAATTTGAGAGAACTACATTTTGCTTAATTA  
CTATTTAAATCACTGTAACACAATATTTGATGACAAAATTTGAGTTTGTCTTTTAAATAAACTGTCAATCAAAGAAATAAC  
ATAGAATTTGTTTTTCTCTCTGTTAAGGCATGGCTTAAGTGAATTTACTTTGAAAACATTATACCTGTTTGGTTTT  
AACAGAACCACTTGAATTTTCAACCCATTGAGTTTAAAGAAATGCATCGTAGCAAAATTAAGTCTATTTGGTTTT  
GATCATTTCTGTCTGTATCATAGAAATATGGTTCACTAGTGAATCAATGAGAGATAAAGGTGATCATGGTCTGTGAGAT  
AAATGCTGCCCTCTGAGTTGCTTCAACGCTAGCCAGCTTCAGTGTATCAGTTAGAGTAGTTAATACTAACTGTTGTAA  
CAGATAAATACCAAATCCAGTTGCTCAAACAATTGAAGTTTATCTCTCATTCTAGCTAAGTCAGTTGATGTTTCTGG  
TTCACCAGCTGCCCTTCCACCTGGTCAACCCAGACCTGGGTTTTCTCTATGCACCTGTGGCTTCATTTTCTCTCAA  
CTTCAGACTTCTCTCCATCAGTATGTGAATAGGAACCCAGAGATGTTTCTATGAGCAGGCCAGAGTGGCTTATG  
TTGCTTCCATTTACCTTACATCTACATGTCTATACAAAAGAAATGTTGGTCTAGCTATGGGCCAGGGAAGAAGTAAGA  
ATTTTCAATGACTCTCTGCCACTCGCTGCTTAAGGTGAGATGATACTGCACCTATCCAAATCAATTTCTTTTGTATC  
CTTAAACAAATGTGTTGTCATCCATATTATTTATAACATATGTCTGTTTCTTTTGGACAGTATTATTCTGTAGACTT  
CTTGACTGATACATCCCAAGATCATCTTTACTGACTTAGGGTTACAGTTTGGATAAGTTATCCCAATCTCAGGAGTTT  
AATATGCCCTTATTGAGATCTTTTCAACTTCTAGGTAAGAAGTAAACTCATTCCTAATCTTACTACTTGGACATAGTC  
TCTCCCTGCTACCATGTCTCAGGACCTTCTCTGTTTCAATGCAACTATCTCCAGTTTCTCTCTTCTCATCT

Fig. 6.1c6



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CTGGCTTCCTCCTTCTTATCTCCCTTTTAACTTCTATTTGACCAATTAAGTGTGGCAATGCCTCAGGCGTGGTCCCTCCT  
TTTTATTGCCCTTACACTATACTTCCCATGCCTCTGATTTCAATGATCACTTATATACTAAGGACTCGCCAATTTGTATA  
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CCCTCATCCAATCTGTTCTCCATATTGCGAGTCAGTCACCTGTTTGAACAGAAAGTCCAACCTATCACTACCACACAC  
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CAATAATCTGAATCACACCTTGTCTCCAGCCTCCTTTCTGCCTTATCCTGAAGTATCCCTGCCTGTTTCACTCCCTCA  
GCTTCTGTACACCGACTTTCCACCCAGTGCCTCAGGGCAGCTTTCTCATGCTGTTCTCTCTGCCAGGAACACATGCTTC  
TGCTTTTCTCTCCCTTTACCTAGTGAATCCCTCCTCATCTTCCCATCTTGTAAATTCATTCAGTTTAGAAGACTT  
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CTATTTGTCTATCACTGCATCAGTAGTACCTAGAACATGTCTCACACACAATTGAATCCAATAAGCATCTTTGTCTC  
GGCAGCTCCTCGTTTTTAATCTTAAGCCCTACCTACCACTAGCACAGAGAGAGTCTAAATCAGTATTTTATTAGTT  
GAAGTGGCTGTTAATGGCTAGTGTTTAAATATATTCAATTTGAAAGACATATTTCAAAAATTCCTTGTGGCCAGCCC  
AGTTTGACTCCCAATAAAAAATACAAGTGTGCCATTTTGTTCAGACAGACACATAAGGTTGCTATTTAGAAGGAGGGT  
TTTTATTGATATATTAAGACTGCCTTGAACATATCAAGTAAATTTATTTCCCATTTTCAATTTTTAGCCATCTGTTTGT  
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TCAGCACTTACTATGAAAAAATAAGTAGATTATGGCAGAAATAAAGTAAATATTTTCTGCTTGATATTTAGAGTGT  
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CGAGTCAAATGTTGAATATGTATTACAATTTAGGCTGTTCTTGAAGCTTTATTAATTTAGACCAAAATCTTCTGAAGC  
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TTGCTTCTTTTCAAGCTAGGATATTTGGGATATTAAGGGCTCTTTTAACTCAAATAGCAAAACCATAGCCCTCATCTT  
CTTATTTAGGAAGACGGTCTTTAACATTTAATTTCTGAGCACTTACCTTTTCCGTAAATGAAATTTCTGTTTCTCATTTGG  
ATATTTGGCAGAGAGCCAAGATAAGGTGAGCATTGAGCAGGATAAACTAGATGATTCTTAAATTCAGCAAAATATATTTTG  
ATTCCAATTTGTGTACCAAAATTTCTTAGGTACTGGGAATTTTCACTAGTGAACAAATAACATTTCTATCTCTCAGAGC  
TTACATTTCTGAAGATAGGTAATAAATAATTATCTATCTAATCTAATGAATCACTCTTCTCTCTCTCTCTCTCTCTCT  
TCTCTCTTTGTCTCCCCGCTTGGGTCTTTCAAAGACATTTCTGCAGGACTACAGCTATGAGCTGTTTAGCAGTCAGTAC  
AACCTCTGGAAGATGGGTGTACCTGCCCAATAAAGGGGATCTGAGAAGACCGTCAGTAGCATCTACTATAGAAGATAAA  
TGCAGTATTTCCAGGCAGGAGATTATGATGGCTTGGACTAGGGTGGTAGCTGTGTTTACCGTGAGAAAGATAAGATCTGG  
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TTTCAAAATCTAATTTGGGTATTGATGATTTTAAACTGAGGAGTTACCATAGATAAAATAGGAAAGCCACTCTAATGT  
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GAAAAATGTTTTCTGATTTGCTATTATTTTTTTCAAAGAAATAGGCTATCAACTGAGTGTGAGGATAGAGCAGAAGCT  
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CCCCACCAATCTCATCTGAATCTACTCCCAATATCCCAATGTTGTGGGAGGAGCTCGGTGGGAGATAAATTTGA  
ATCATGGGGTAACTTTCCCCCATAGTCTCTCATGGTAGTGAATAGTGTCAACAGATCTGATGGTTTATCAGGGGT  
TTCTGCTTTTGCATCTTCTCATTTTCTCTTGGCACTGACGTGTAAGAAAGTACCTTTTGCCCTCTGCCATAATTGTGAG  
GCCTTCCAGCCATGTGGAAGTGAAGTCCAATTAACCACTTTTCTTCCAGTCTCGGGTATGTCTTTATAAGCAAT  
GTGAAATGGACTAATACAGTAAATTTGTTACCAATAGAGTGGAGTGTGATGAAAGATACCTGAAATGTGGAAGCGAC

Fig. 6

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TTTGGAAATTGCCCAACAGGCAGAGGTTGAAACAGTTTGGAGAGCTCAGAAGAAGACAGAATAATGTGGGAAAGTATGGA  
GCTTCCCTAGAGACTTGTAAATGGCTTTGACCCCTGCTGCTAGCAATATGGACAATAAGATCCAAGCTGAGGTGCTC  
TCAGATGGAGATAAGGAACTTGTGGGAACTGTAGCAAAGGTGATTCTTATTATGTTTTAGCAAAGAGACTCACAGCAT  
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TTCAGAGGGCAGCAGCCCTAAGCCTTGGCATCTTCCATGTGGTGTTCAGCCTGCAGATGCACAGAAGTCAAGAATTGAA  
GTTCCGGGAACCTCCGCTATATTTTCAAGAATGTATGGAATGCCCTGGATGCCAGGCAGAGAAGTTTGTGCAGGGGCAG  
GGCCCTCATGGAACCTCTGCTAGGGAAGTGTGGAAGGGAAATGTGGGGTTGGAGCCTCCACACAGAGTCCCTACTGG  
GGCACTGCTGGAGCTATGAGAAGAGGGCCACAGCCTTCAGACCCAGAATGGTAGATCCAATGACAGCTTGAAGC  
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GAAATGAGTTAAGACTTTTCAAGGACTATTGGGAAGGCATGATTGGTTTTGAAATGTGAGGACGTGAGATTTGGAGGGCC  
CAGGGGGGAATTATAGTTTGTAGCTCCGTGTCCCAACCCAAATCTCATCTTGAATGTACTCCCATAAATCCACATGT  
TGTGGGAGGCAATTTGGTGGGAGATAAATTAGAATCATGGGCACTTTCTCCCACTGTTCTCGTGGTGGTGAATAAGTC  
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GTGTGTTAGTCAGGGTCTCTAGAGGGACAAAATAATAGGAGATATATATATATATCTCTATATATCTCTATATAT  
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TCCCAAACTGAACCTGGAGTCCAATTTTCAAGGGCAGGCAAGCATCCAGCATGGGAGAAAGATGTAGAGTGGGAGTCTA  
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GCCAAGTGGACCTCTCACTTTGAGCACATGGTAAGCATCCTCCATAGGTACACAAAGTTTGTAGCAACTAACTCCTAT  
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GTCTTGAACACATGAATTTGTTCTAATGCAATGGACATATTGGAGAAGAAATTTGATGAACAGCTAAAAAAGCAATAGT  
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TTTAGCTTCTATCTGAGTTTCTCATATTCTTTTACCTTCTCATCTCTCAGTGTGAGCTCATATGAATCTGTGGCTTCA  
GGTCCCATGTATATACTGATGACACCCAAATCTCTTCTGAAATGACCAAGACCAAACTTCTGAGTCAAGATTTTA  
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TGCATGTGTGAGTGTGAGTATGAGTGTGTGTACCACATATACTTACTATGTGTGTAGGCATTGTCCTATATGTTTCAT  
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GCACCTCACTTTAGGGGTCTTACAGTCTGGTGTGTGTTCTTCCAACTTTAGTGTGTATCAGAATCTCTTGGGGAAACAT  
GTTATAATATCTTGGGAGGCTTTCATACACAGGACTCCGTTCTCAGAGATTTTGTTCAGTGGAATGGATTTAAAGGCG  
AGTGAGCTGCATTTTATAAACACCACTCTTGAAGATGATAATGCAGGTTGTTTGGAGAAACACTGTAGTGGCTGTG  
GAATTGATGTAAGTGTGAGGCAAAAATGGTCAAAAGTAGGATAGTTGGAAAGTAAGAGGTGGAATTTCAATTCGAATG  
GCCATTTGAGCCCATGTTTTATTTATTTATTTATTTATTTGAGATTCTCAGTAAACACACACACACACACACACACAC  
CACACACAACCTACATCCATCCTGAAAACAGGAAAGGTTTCCATGCAGAGGTCAAAAACCTGTGACGTATATCTGCCAT

Fig. 6.108



[illegible]

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AGACACAAGAGAGATAAGAGCTGATTGTTATGGCAAGGTCTCTGGCTAGGCAGAAAGTGAATGGGTGGAAGAGAACAGAT  
TTAGGAACTGACCTTCTATCAGGAGAACATATTTCTTCCAATGTCTATGGGGGAACATAGAGACTCAGGGGGTCTGTAA  
CCATGTATGGCCCCCAAAGGACTGGACACATGGTGAGCAACTATGGTAGGATGAAGGGAGGCATGTTAGGAAATGTCCA  
GCTCCGAGGCCTCCACGTGACCCCTAGGTGAGAAGCTGCCATGATTCTTAATAGGGAGCAACACAAAGACTAAAATGA  
TGGCAATGTAAGGGTTAAGGAAAAGGTGATTTTAAAGCTTCTTGAGGGTAAAGTCCATCTGTGTTCACTTTTGTGATC  
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GTTTCTTAAGTTTCTTCTATTTTCTTAAGGAAGGAGGTGATAGGATGGAGGGGCATGATGCCAACTTGACTCTCTCTGC  
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TAAGCCCATGGAACATCCTCTTCAAATGAAGTTGACGTACGTCTCATCTCCCTGGATTGGATGCCCAACCCTCACCCCTT  
GAAAGCAGCTTGTGGATAACTCAGGGCAAACAGAGCAGAACCCTCATGAACCTTCTCTCTTCTGGAATTTTGGATGG  
CGTTACAGAATGAGGCAAAAATAAAGTTACCTTCTTCTCTTCTTCTTGGATTAAAGATCCAGAGCCATTCTCCTCTGTG  
TTCTCTACTTGGACCTTGTATAGTGTAGGATATAGCCAGGAATAGGATCCTCGGTTGACTCATAGTCGGCAGAGGGT  
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AGGTGACCAATAACATGATACATAAACAGAGTGAGTCATGTTGTTTATCATACTGTTTTTATAAATTTTGTATAATA  
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ACACACTCTTTGGATTATCAAGCTTTTAAAGTATAAATCAAGTTTTTAAATGAATATACAGAAATATAATGGC  
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AAGCATGAAGAAACCACTTTAGGGTCAGGAATTTTCCATAAGTCAGGTTTTTTTTTAAAGCCATATAATCGATGCAGA  
TATCAAACATTAAGATGAGATAAAATAGCTTTTAAATCAAGTAAGTTAAATTAATAACTGTTAAGGTTCAAATCATG  
AATTAATCTAGATGTTTGGCAAAGACAAAATCTTTATAAAGGATAAAATAGTCTGGGAATAAAGTATTTGTCATTTC  
CCATATCAAATGAGAACAAAATAAATTTTATTAACCTTTAGGTTTTTATTGTATTAAATAACATCATTTTTATTAC  
TTTATCAAGGTATATTTTTCTTTATTATATGCTTTGTAGAAAACCTAGTAACATTCCTGTGTGACTGAATAGATTA  
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TTGATTCCATATCTTAGCTGTTATAAGTAGTGCCGCAATAAATGATGGTAGAGGTATCCCTCTGATATATTGGTTTC  
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CCATCATTTGTTATTTTTCTTTTCAATAATGGCCATTCTAAGTGGGTGAGATAATATCTCATTGTGGTTTTGATGAT  
TAGTGATGTTTCAAGATTTTCTCATATACCTGTTGGCCATTGCAAGTCTTTTGAAGTGTCTATTTCAGATATTTGCCC  
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CCCACCTATGAGTGAGAATATGCGGTGTTTGGTTTTTGTCTTGGCAGATGTTTACTGAGAATGATGATTTTCAATTTT  
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TTTTTGGCTGCATAAATGTCTTTTGGAGAAGTGTCTGTTTATGTCCTTCCGCCACTTTTTTGAATGTTGTTTTT  
TTTTCTTTGAAATTTGTTTGAAGTTCATTGTAGATTCTGGATATTAGCCCTTTCTCAGATGAGTAGGTTGTGAAAATTTT  
CTCCCATGTTGTAGGTTGCTGTTCACTCTGATGGTAGTTTCTTTTGTGTCAGAGCTCTTTAGTTTAAATTAGATCC

Fig. 6. (10)

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TATTTGTCAATTTTGGCTTTGGTTGCCATTGCTTTTGATGGTTTAGACATGAAGTCCTTGCCCATGCCTATGCTCTGAA  
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CTGAGGGCTCTGTTCTGTTCCATTGATCTATATCTCTGTTTGGTACCAGTACCATGCTGTTTGGTTACTGTAGCCTT  
GTAGTATAGTTTGAAGTCAGGTAGCGTGATGCCTCCAGCTTTGTTCTTTTGGCTTAGGATTCATTTGGCAACGCGAGCT  
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CATTGAATCTTTAAATTACCTTGGGCAGTATGGCCATTTTACGATATTGATTCTTCCGACCCATGAACATGGAATGTT  
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GTAAGTTGGATTCTAGGTATTTTATCTCTTTGAAGCAATTGTGAATGGGAGTTCACTCATGATTGGCTCTCTGTTT  
GTCTGTTGTTGCTGTATAAGAATGCTTGTGATTTTGTACATTGATTTGTATCCTGAGACTTTGCTGAAGTTGCTTAT  
CAGCTTAAGGAGATTTTGGGCTGAGACGATGGGGTTTCTAGATATACAATCATGTCGTCTGCAACAGGGACAATTTG  
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CGGTTCTGTTTATATGCTTGATTACATTTATTGATTGTGTATATTGAACCAGCCTTGCATCCAGGGATGAAGCCAC  
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CATCAATGAGTTAGGGAGGATTCCCTCTTTTCTATTGATTGGAATAGTTTCAAGGAATGGTAGCAGCTCCTCCTT  
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TGTGGGATCATTTGGTATATCCCTTTATCATTTTATTGTCATCTATTGATTCTCTCTCTTTTCTTTATTAGT  
CTTGCTAGCGGTCTATCAATTTGTTGATCTTTTCAAAAACAGCTCCTGGATTCAATATTTTGAAGGGTTTTTGT  
TGTCTCTATTTCTTCTCCTCTGATTTTAGTTATTTCTTGCCTTCTGCTAGCTTTTGAATGTGTTGCTCTTGC  
TTTTCTAGTTCTTTAATTGTGATGTTAGGGTGTCAATTTGGATCTTTCTGCTTTCTCTTGTGGGCATTTAGTGCTA  
TAAATTTCCCTCTACACACTGCTTTGAATGTGTCCCAGAGATTCTGGTATGTTGTGCTTTGTTCTCGTTGGTTTCAA  
GAATATCTTTATTTCTGCCTTCATTTCTGTTATGATACCCAGTATTGAGGAGCAGGTTGTTCACTTCCATGTTGTT  
GAGTGGTTTTGAATGAGTTTCTTAATCCTGAGTTCCAGTTTGTATGCACTGTGGTCTGAGAGACAGTTTGTATATAAT  
CTGTTCTTTTACATTTGCTGAGGAGAGCTTTACTTCCAATATGTGGTCAATTTTGAATAGGTGTGGTGTGGTGTGTA  
AAAAATGTATATTCTGTTGATTTGGGGTGGAGAGTTCTGTATATGTCTATTAGGTCTGCTTGGTGCAAGGTGAGTTC  
AATTCCTGGGTATCCTTGTTAACTTTCTGTCTCGTTGATCTGTCTAATGTTGACAGTGGGGTGTAAAGTCTCCCATTA  
TTATTGTGTTGGGAGTCTAAGTCTCTTTGTAGGTCACTCAGGACTTGCTTTATGAATCTGGGTGCTCCTGTATTGGGTG  
ATATATATTAGTATAGTTAGCTCTTCTTGTGTAATTGATCCCTTACCATTATGTAATGGCCTTCTTTGTCTCTTTT  
ATCTTTGTTGGTTTTAAAGTCTGTTTTATCAGAGACTAGGATTGCAACCCCTGCTTTTTTGTCTTCCATTGCTTGGT  
AGATCTTCTCCATCCTTTATTTTGGAGCTATGTGTCTCTGACAGTGGGTTTCTGAAATACAGCACACTGA  
TGGGTCTTGACCCTTTATCCAATTTGCCAGTCTGTGCTTTTAAATTGGAGCATTTACTCTATTTACATTTAAAGTTAAT  
ATTGTTATGTGTGAAGTTGATCCTGTCTATGATGTGCTGCTGTTATTTGCTCATTAGTTGATGCGGTCTCTTCTTA  
GCATCGATGGTCTTTACAATTTGGCATGTTTTTGCAGTGGTTGGTACTGGTTGTTCTTTCCATATTTAGTGCTTCTT  
CTGGAGCTCTTTTAGGCTGGTGGTGACAAAATCTCTCAGCATTTGCTTGTCTGTAAAGGATTTTATTTCTCCTTCACT  
TATGAAGCTTAGTTTGGCTGGATATGAATTTCTGGTTGAAAATCTTTTCTTAAAGATGTGAATATTGGCCCCCAT  
TATCTTCTGGCTTGTAGAGTTTCTGCCAAGAGATCTGTGTTAGTCTGATGGGCTTCCCTTTGTAGGTAACCCAACTT  
TCTCTCTGGCTGCCCTTAACATTTTTTCTTCAATTTCAACTTTGGTGAATCTGTCAATATGCGTCTTGGAGGTGTGCT  
TCTTGAGGAGTATCTTGTGGCGTTCTCTGTGTTTCTGTATCTGAATGTTGGCCTGCCTTGCTAGATTGGGGAAGTTC  
TCCTGGATAATATCCTGCAGAGTGTTTTCCAACCTGGTTCCATTCTCCCATCACTTTGAGGTACACCAATCCGACATA  
GATTTGGTCTTTTACATAGTCCCATATTTCTTGGAGGCTTTGTTGCTTTCTTTTATCTTTTCTCTAAACTTCCC  
TTCTCGTTCTATTTCATTTCACTTCCATCACTGATACCCTTTCTTCCAGTTGATCGCATTGGCTCCTGAGGCTT  
CTGCATTTTACGTTAGTTCTCAAGCCTTGGCTTTTCACTCCATCAGCTCCTTTAAGGACTTCTCTGTATTGGTTATTC  
TAGCTATACGTTCTGCTAAATTTTTTCAAAGTTTTCAACTTCTTTGCTTTGTTTGAATTTTCTCTGAAGCTCGGA  
GTAGTTTGTATTGTCTGAAGCCTTCTTCTCAACTCGTCAAAGTCATTTCTCGTCCAGCTTTGTTCCATTGCTGGTGAG  
GAAGTGGTTTCTTTGGAGGAGGAGAGGGCTCTGCTGTTTAGAGTTTCCAGTTTTTCTGCTCTGATTTTCCCCATCTT  
TGTGGTTTTATCTACTTTTGTATCTTTGATGATGGTGTGTACAGATGGGTTTTGGGTGTGGATGTCCTTTCTGTTTGT  
AGTTTCTCTTCTAAGAGACAGGACCCCTCAGCTGCAGGTCTGTTGGAGTTTGGTGGAGTTTGGTGGAGTTTGGTGGT  
CTGGGTATCAGTAGCGGTGTCTGCAGAACAGCGGATTTTCTGTAACCGCAAATGATGCTGTCTGATGGTTCTCTGGAA  
GTTTTGTCTCAGAGGAGTACTTGGCCGTGTGTGGTGTGCTGAGTCTGACCTACTGGTGGGTGCTTCCAGTTAGGCTGCTC  
GGGGTCTCAGGGTCTCAGGACCCACTTGAGGAGGCACTCTGCCATTTCTCAGATCTCCAGCTGCGATGCGAGAACAC  
TGCTCTCTTCAAAGCTGTGAGACAGGACATTTAAGTCTGCAGAGGTCACTGCTGTCTTTTGTGTTGTCTGTGCCCTGC  
CCCCAGAGGTGGAGCCTACAGAGGCAGGAGGCTCCTTGAGCTGTGGTGGGCTCCACCCAGTTTGGCTTCTCTGGCTG  
CTTTGTTTACGTAAGCCTAGGCAATGGTGGGCGCTCTCCCCAGCCTCGCTGCCACCTTGGCTTGTATCTCAG

Fig. 6. [11]

[illegible]

Fig. 6.112

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AGAAGTTTGTACTTTGTTTATGATCTGAGTTGCAAATACTTTTATTCCTTCCTTGACATTTATCATTGCGCTTAACCTTA  
TGGTGAATTTTTTACCATGCAAATGTTTTGATTTTCATGTTGTTTCAGTATGTCAATATATTTTATATTTCATTACATTCA  
TTAGTGGCTAAAACCTCCCAAATGTTGGTAGGAATATGGATGTCTAGATTAGTGAGGCTCAAATGCTCCAGGCAAGATC  
AACGCAAAAAATACTTTTCTAGACACATTAATAATCAAATTGTCAAATCAAAGACAAAGTGAGAATTCTGAAAGCAGC  
AAGAGAAAACTACTCATCACATGGAAGGGTACTCACAAGGGCTACAAGCAGATTTCTCAGCAGAACTTTGCTGGGCA  
GGAGGGAGTGGAAATGATGTATTTCGGAGTACTAAAAGAAAAACAAACTGCCACATAAGAATAATAGTCTGTAAAAGCT  
GTACTTTAGAAAATGAAGAGACATAAAATCATTCCCAGAGAAAAGAAAGCTAAGAGAGTTTATTTCACCTAGACCTGCCT  
TAAGAGAAATGCCAAAGGGAGTTCTTCAAGTTGAAATGAAAGGACCCGAAGTAACATCATGAAAACACAGGAAATCCCA  
TAGCTAACATCATACTCATGTTGTAAAGCCAAAAGCTTTTCCATTAAAGATCAGCAAGAAGACAAGGGAGTTCACTCTCA  
CCACTTCTATTCAACATAGTACTGGGAGTCTTAGCCAGGGCCACTAGGCAAGAAATGGAAGTAAAAATATCCAAATTG  
TAAAGGAAGAAGTTAAATTGTCTCTATTTGCATAAGGCATGGTTTTTTATAGGAATCTCTAAAACTTCATCAAAAAAC  
TTAAATTAATAAAATTCAGCAACGTTGCAGGATACAAAATTAACATACAAAATCCAGTTGCATTTCTGTACATTAAACAA  
CAAACATTGAGAAAGAAATTCAAAAGACAGTCCGTTTACAATAGCATGAAAATAATAAAATACAGAAGAATAAAATAC  
AACCARGATGTGAAGATCTGTACACTGAAAATTAAGGCAATGATGAAAGAAATTTAAATAATACAGAAATGAAAAC  
ATATTTTATGTCTATGTATTGAAGAATTAATATTGTTAACATGGCTTTACTGTCCATGTAATATACAGATTCAACCCC  
TATCAAAATTCCAATTGCATTTTATATAAAAATGTGTTGGGTACATTATAATTTCTATTCTAGCTATTGAAATATATA  
ATAAATTATTTGTTAACTATAGTTTCTCTACTGTCTATCTAATGCTAGAACTTATTCCTTCTATTTAACCATATTTCTG  
TATCTATTAACCAACTTCCAGGCTGTGTGTTGACAGTTTTTCTAAGAGTTTTCCCAAGGCAAGAGTAAGTGGAAGTCA  
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CACACCCGATGACTGCAACTGTGATTAAAGATTTTCCAGTCTCTTTTATCCCGTTTAGCCTAGGAGCAGGTA  
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TCTAATGTCCATCACAGCACCGGATTTAACTCACAACATGCACACACACAGGATATATTGAATGAGTAAATAAA  
TAACAGACAGGAGAGTTGTTACTAAGTATCTAATATTACCTTATTGTTCTAATACTGTGGATTGATATAACTTT  
GGGAGCAAGCAAGGTATCAGTCTTAAAGTATAGACAAATTTACTATGTACCTCAGATACTCAAATAGAGAATATCCTA  
TGCCCAATGGCAAGGCTGAATTGAYCCAAGTGATTAAGTCATACTCTTAAACTGTATAACCTAATAACCTTTTATTA  
AGAATAAGTTTCAAAAAACAGTTTCAAAATTTCTTTTACTTAAATGTATATATATATGTGTCAGTTTTTTCAGATGTGAA  
TGGGATTTGAGATCAGAAAGGAGGCTTCATAGTCTTCAACTTCCAACTTGCTCTCTATTTGTCCTTTAGCAAAAGACA  
ATCTTTCTCTTTTACTTTTATTTGTTAAAC  
CACAACCTTCATAGCATCCAATGAGCAGTATCTAGGTACACGGCCAATGCAAAGCACTCATTTTCTTATTTCTCTTAC  
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GTTTTATTCTTAATGTATCGTGAACCTTCAGTAGAGAGCAACAAAGTTGTCTTTATAATTTGAAGTTTGTCTTCTCTT  
TGAAAGAAAACGCATAATTTGGAGATTCCATCTGTGAAAAAACTTAATTAACAATGTTAATTTTAAATTTCTATTA  
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CAATGATAGACTGGATAACAAAAATGTGGCAGATATACACCATAGAATACTATGCATCCATAAAAAAGGATGAGCTCTT  
GTCCTTTGAGGGACATCGATGAAGCTAGAAACCATCATTTCTCAGCAAACTAACACAAGAACAGAAAACCAACACCAC  
ATGTTCTCACTCATAGGTGGAGCTGAACAAAGAGAACACAGGGACATGGGGAGTGAACATCACACATGGGGCTGT  
TAGAGGGTGAAGGGGCTGGAGGAAGGATAACATTAGGAGAAATACCTAACCTAGGTGATGTTGTATAGGTGACGCAAA  
CCACCATGGCAGTGTATACCTATGTAACAAACCTGCACGTTCTGCACATGTATCCAGAACTTAAAGTATAATAAGTA  
AGTAAATAAATAAGTAAAAAGAAATATGTTAAAAAATTATATTATGTAGATATTTTGTATCTTGCTTCATGCCAAGT  
GCTTTCATAAATGCTAGACTTCTATTTGTACATTTTGCTTTCATGAGGGTGAAGACAAATAAGAGTGTATTCAAAA  
ATATTAATGTACCGAAAAGTAAAGTAACTGTAGGGCTTCATAACAAAGTACAACAAATGAATGGCTTAAACAAGAG

Fig. 6.113

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AAATGTATGTATTGTCTCACAGTTCTGGAGGCTAGGAGTCTCAAATCAAGGTGCCAGTAGCGTTGATTCCCTTTTGAGTA  
AGCTGAGAGAAAGATCTGTCCCTGGCCTTTCTTTGGCCTGTAGATAGACAACCTTCCTTCCCTGTATGTCTCTTCACA  
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TGTCACTCACATTGGGTTAGGGCTACCCTAATGATTTTCATCTTAACCTTGATTACCTCTGTAAAGACTTTATCTCCAAA  
CCAAATCACATTCTAAAGTACTGGGGGTGGGTGAGGCTTCAATATATGAATTCCTGGGGAGACCCAAAGCAATCCATAA  
AAGTAGCCATTTAAATAGAAGTATTTTTAGTCTTTTAACTTAAAGTCTCTCTACARTGTTAAACCATGCCATCTTAATG  
TGTGTTATTTAGATAATCTAAAAAATTATATATTTTCATTAACATTTAGGTTACCTTCAACTTTGTTTTTGATGTTTT  
GTAAGCTGCCCATAAGTGACTTTAATCACTCACTGTATACCCTGACAGATCATTTCTCATGAATTCAGTGATGTGCAC  
TTTGAGACTCAGGAAAGAGGGAACTTGCCCTTACTAAAATCATATAGTTAGTATGTGGCAGAGCTGATATTCAACTCT  
ACATCTTGTCTGCCCTCCAAAGTTAGTGATATATGCATGGTCAATATTATTTTAAAAATACTCATTAGTGCTTGCCCTTTT  
AATAAAATGTGATTTTCTGATTATAAGTGTAACAGGTGATCACTGAAGAAAGTTTAGGAAAAAATCAAACTTATT  
CAGATTAATATTAATAATTTACTATAAATTCACCATTCCATAGATAATTGTTGGTATATTATCTTACAGAAATCGTTTATA  
AACATTTTTATTATTCAATTTATATATTTATATCTGCAGAACTACATATGTAGTTTACCACCAAACTTGTGTC  
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TCCATCCCTTTTGGCCTGATATGAAAACCTGGTATATCTCTTGAGAGAAGAGCCTCAAAAAATAATCTGAGATAGGAACAA  
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TGCTAGGCTCACCCGATGCAGTCCAGTCACTTCCCTATGACTTAGTTGTTTGTATTGTCCCCAGAGTCAAGAGT  
GTCCCAAGTCTATGAATCTTGCTCCAGAGCATTGTAATTTAGCCTACGGCCTTGTTTACACAAATAAATCTGGCATTAG  
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AAAGAGTGAGATCTTACCATGTGTCTTCTAAGAGTGTTTCAAGAGTGTTTTTTTTTTTTAGCGTGCAGAGTCTTAAGT  
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TCCCGGGTTCACGCCATTCTCTGCTCAGCCTCCCGAGTAGCTGGGACTACAGGCGCGCGCCACCATGCCCGGCTAAT  
TTTTGTATTTTATAGAGACGGGGTTTACCCTGTGAGCCAGGATGGTCTCGATCTCTGACCTCGTGATCCGCTGT  
CTCGGCTTCCCAAGTGCTGGGATTACAGGCGTGAGCCAGCGCGCCGCCACATTTCTTTATCCATTCTACTG  
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CTACATCCTTGAAAGCATTTGTTTATTTTTGTCTTTTTTGATAATTACCATTTAACTGGGGTGGGATGATATATCATTTG  
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TTACCTAAAAAATCTTTGCCAGACAGTGTCTTCCAAATTCATGAGCATGGGATGGATATCTTTAATCTTTTGTGTC  
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TCTAAATGTTTACTGCTTTTTGTATGTTTATTTTGTATATTGCAACTTTAATGAATTTGTTTTTCACTTCTAACAGGT  
TTGGTYAGTCTTTAGGTTTTCTTAAATATAGGATCATGTCTGTGAAATGATAGTTTGAATTTTTCTTTTCCA  
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AAGTGGGCATCATTTGCTTGTTCAGATCTTGAAGAAAGAAATTTCCATTTTCCCATTCAGAAATGATGCTAGCTGTGG  
ATTTGTATGTAAGATCTTTATGTTTTCAGGATATTTTCTTATGTATCCAGTTTGTGACAGTTATTATCATGAAGGA  
ATGTTAAATTTTATCAAATGCTTTTTCAGCATCTATTGAAATGAGCATATGGTTTTTGTCTTCACTTCTGTTGATCAA  
TGTTTACATTGATTGATTTACATATGTTGAATTATCCCTGCAACCCCTGGGATAAATCCCACTTGGTCAATGAATAT  
TTTTATGTTTTGTTGAATTCAGTTTGTCTGATTTTGTATGAGGATTTCTGCATCTGTGTTTCACTGATACTGACCT  
GTAGTTTTCTATTTTGTGTTTTTATCTAGTTTTGGCATCAGGATAATCCTGGCCTTTTAGGATGAGTTTAGAAGT  
ATAGTTTAGAAGTATCCCTTCTCTTCAATTTTTTGAACAGTTTAAAGAGAATTGGTATAGGTTATCTTTAATCGT

Fig. 6.114



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TTGGCAGAATTCAGCAGTGAAGCTGTCAGATCCTGGGCTTTCCCTTAATAGGAGGCTTTATTACTACTGCAGTCTCATA  
CTCATTACTGGTTTTTCAGTTTTCTCTTTTTTCATGGGTTCAATCTTCATGGTTTGCATGTGTAGAAAATTYATCCAT  
TTCTTTTAGGTTTTCTATTTGTTGGTGTATCAATTTTCATAATCTTGTCTGTTGCTTTTTTTTTTGTATTTCTGTAGT  
ATCAGTTGTAATATATTCTTTTTCATCTCTGACTTTATTTTTTAGACTTCTGGTTGGTGTAGCTAAAAGTTTCTTGATT  
TTTTTTTCAAAAACCAACTACATTTTGTGTGATCTTTTGTATTTTGTAGTTCAAATTTTATTATTTATGCTTTTGATC  
TTTATTATTTCTTTCTCTCTACTAATTTTGAGTTTGATTGTTCTTCTGCTTTTTTAGTTCCTTGAAGTACAATGTTAGGTT  
GTTTGTGTTGAAGTCTTTCTACTTTTTGTATGTAGGTGTTGATTGCTACAAATTTCCATCCTAGAACTGCTTTTGGTATAT  
CCTCTAGGTTTTTGTATGCTGTATTTCCATTTTCATCTGCTCCTAAGAAAATTTTTAAATTTCTTTTTTAATTTATTCA  
TTGACCAATTTGTTTTTTCAGTAGCATGTTGTTTTCTTTCCATGGATTGTACAGTTTCCAATGTTCCCTTCTCTTATTGC  
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TCTCTCTTACTTTCTGTTTTGTGTCACAAAATAATTTCTCTATTAGGACATGTTGATTTCTGGCTACTTATTTTTAGT  
GTATCTATAATAGTTTTGCTTTGTTGTTACTACAAGGCTTATAAAAATATATTTATAACAGGTTATTTTAACTGAT  
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TTCATACTTAGGATATAAATGTTTTACTTACCCTAATTATAGTATTATAGAATTATGCATTTTTCTGTTTTTAAATAGT  
GAATTCATACTTTAGGTTTTTTTTGTTTTGTTTTTGTTTTTTGTTTTTTACACATTAGCATCCATTTTTTTTTCAGAT  
TGAAGAATTCCTGTAGCATTTTTTGTAGGCGAAGTGTCGTTGTAAATTTCTCAGCTTTTGTGTTGCTGAGAAAAGT  
TTTTTATCTCTTTTTCTGTTTAAAGGATAGTTTTCTGGGTATAGTATCTTAGCTGGCTTTTTGTATTTGTTTCTCT  
CAGCACTGTGAATATAGCATCTCACTTCTTTTGGTCTGCTAAGTTTCTCYGAGAAATCCGCTGAAAGCCATATTAGAGA  
TCAGTTGAATGTAATGTTCTTTTTCTCTGCTGCTTAAAGTATTTCTTTCTTTGTTTTGATTTTACTAATTTCAATAT  
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TATATTGCTGCCCTACAGTTTTTTCCAGTCTGGTAAAGACAGGTGAGTACCAGAACTCAGTCCCAACTTTTAGTTGTT  
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TTGATTACAAGTGACAGAAACTCAAAATCAAAATAGCATTAAGCAATTTAAATAAATAACAAATAAATGATGAAAGTTTA  
TTAGTTATCTTAGCTGGAAGGATTTTAAAGATGTAGAAATAAATAGTAAGTGTAGAGTCAGTGCCTCAGAGACTCA  
CCTCGTCATGAGTAGGACTTTTTCCCTCCATCACTTTCTTACCTCTTCTAGCTACATCTACATGAAGGCATTCTCCAC  
TTGGAATAAAGACGGAGGCACAACCTCCCATAGAAAAGAGTTTCTTCTCCCATTTATCAATATATCTGCTTGGATTCT  
GCTTGGCTATTTGCTTGGATTAAATGTTTACTTTTTAGATACATTACTGCTAATAGAGAATGAGAAAATAAGACTGGCT  
ATGCTTGGAGGTTAGGAAGTGAGGAACAAGAGAGGGGCTTCGCAAGATCATGTGGAATGATTGTGTGATGCTTTCTGA

Fig. 6

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AAGGACATGAGTCTAGGCAGTCAAAAATACCTGGCTAAACACCCTAAGGCTATATTCCTCTATATATTCCTATTCCC  
TATATTCCTCCCTTACCCAACTACCCAGCATCTGCTATTCCTCGAAGCTCTTTTCCCTCTCATTTTTTTGCATTTCTA  
TTGGAAGATTAAACCTGTGAATAATCTTTTCAGGTTCTTACCTTTAAAAATACAGGACAAAGACAACCTGCTTCATTATAC  
TCTTATCTCAGTGGAGTAAAGAAAGTATCTAGAGTTCTGTCTCTTTTCAAAGTAGATTATTACTCTTAGGAAAAATAA  
AATGGGCAAAATCAGAGTTTATATTTCAAAATATCTCGTAACACCTAAATAAGGCATGGACGCTGAACAATCAGAATTGGT  
CTTTGTGTAGACATTGCATCCTGGAGGCCGCTATTATATATCAATCAGGCTTAAATTTCTCTGCTGGATCATTACATG  
GTCCTACTTATCTGGCTGATGGGGCAGGTTAACAGTTGAGGGCTAGGGGAGTTCAAAGTAGTAATTTATTTATCCACAG  
GACAGAACTATGTAATATTTTGGTAATAATACATGACTGCTGACTAACCAGGCGGGTCACTATGTAGGGGTGCAGGA  
TTAACAGTTACTTAAATAGAATTAGCCCTGCAGTGACAACTTTAAGAGAGTTACGTGTTTGGAAACATTGATTTAAAAATG  
TTCTTTTAAAGTAGTTGCTTTGTAGCTTGCTTGTGTTTTCTTTTCTTTTCCCAATGTACTTCAATGGGTCACTGAATAT  
CTTCAAATTGTATGTAAATTTTGGAGGGGAAGTGGTATATGCAGATTTTCTTTTCTGGAAGAAGACCAATCACTTT  
TGCCAAATTTCTCAAACAGGCCATATTTCTCTCACACATGCGTGCGCATGCGCACACGCGCGCGCACGCGCACACAC  
ACACGTTAAGATGCGAAGAATCACTGTCAATAAATGTCTTAATTTCTGTAATGGGAGAAATTCCTCAAGCTT  
ATATAAAGTGATGTAAATAATTCAGTTACAATTATAAAGAAATGGTATCACAGCAAATCCCTTTGGCACCCCATCTGA  
AAATTTCTCTCTGATGTTTAAACACCATTCTATGCTTACTCTTACAGCTGTATTAATAATCAGATAAGGGGTTTATT  
TCTTGTCTATTTTGTCTAGCATATTACCAATCTGGTTCATATGAACCTCATGGGTAAATCTAAAAATGTTCAATGAATT  
ATTCTTCATGAATTTTTCACAAAGCAATAATGTATGAAAAAGTGAACAATATAACATCAGCCAGAGACGCTCAGTTCTG  
CAATTTACAATGAAGAAAACCTGGCATATACTTTAGAGGGAATTTCTAATAAGCCAAAAGGTTAAAAGCTAAATGGGGT  
AAGAGCTGTCTCACTTGACAAATGGTAAAGTCTAACCTTTGGCTCCCACCAGGCCAGACCATAACCGTAGAGTTACTAAA  
GAAAGCACTGTCAAGGAACAAGCCATTATTAAAGTACTTTAAAGTTCTAAGGGAACCTCTTAAACCGTTCTAT  
GTGTACTTTTATTTATCTTGAACCTTTTGGGAACAGCTGTATAACAGGAAGTAGTATTTCTGAGGCCAGGAAGTAGT  
AAGGGCTACACAAATTGGGGCTAATGACTCTATTTGAAAAACAACAAAACAAAAAACTAAAAAATCTTCTCAGG  
TGTTTTATGATGAAAGTCTACTTCTCTATCTTCCATACTGTTTGCCATCTTCTTGTATGATTACATCTGATGACCAAGC  
TCAGGCTTTCCCATACAAATTTATTTTGCCAAGTTTGCTTTGAAAGATATTAGATTTGTAGAGTTTACATTATTA  
AATCGTGAGTGGCTTCTTTTGTCTTTTCACTGTTGAGTGTGTTTGTCTACAGCCTAACCTATCTTTTTCTTATTGCTTGT  
TTCTTTGTATTTGTCTACTCAATATAGCTTGTCAAATGTGTAATTCATGTATATACAGTGTCTTAATATAATTCATG  
GGTATAAAGTGAGAGAGAAATGTAATTTCTAAAGTACTTGGAGGTGGACCACTAAAGGCTCTGAGTTCAATTTATTTAT  
CAGCAAATATATATTGTCCAATTGCAAGCTAGGCATCAAGTATATTTCAAGGTGGTAAATAAATGAGCCTGATCACTTC  
TTTTAGGGCATTACAGTGAAGTGGAGGGGACGGACATGACTCAATCAGGTGAACACATCAGCCATATAATTAACAATG  
AACATGAGAGCTGCAAAATAAATAGACGAGAGAGCTTTGAAAAAGAGTAATAAAGGGGGCTACCTCAGATGGAGGGAGG  
AGAGGTTTTATAGCAAATCTCTCTGAGAAGAAAATATTTTAGCTATGACCTGAGAAATCAGAAGGTGTCACTCAAGGTG  
GGAGAAAGAAAATTTAAGTAGAGCGAGCAGCATGCCCAAAGGTCACATGAGGAACCTGAGGAACCTGATGGGAGGCCAGCA  
TGGCAAGAAATGAGTAGGAGAGAGAAATGGCACAATAAGAAACAAGAGGGGAGTGTGGCAGCACTACTGCTGATACCCA  
GATATGTGACATTCACCTCATTCCAGACACAAAGTAGTATGCTTCTGCTCAATTTCTGTTTGGGTGGGGCCCTG  
CTACTAGATCTAGCCAGTGAGTTGTGAGCACAATGATGCTGTAACTTTCTGTTCAATTTCTGAACTAAAGTATGTA  
ATGGATCAGATCACCTCTGCACTAGAGTAGTCATTAGTAAGACAAGGAGGAAAAATGGTGTGGGCCCTATGTGAGGA  
GACTATAGTGTCTTAGTCAGTTTGGGTGTGTAATAAATTACTATAGATTAGGTGGCTTAAGCAACAAACATTTATCT  
CAGTTTGGAGGCTGGGAAATCCAAGATTAAGGTGTGTCAGATTCAATGTCTAGTGAGGGCACTCTCTTGGTTTGA  
GGTGGGTGTCTTCTTGTATATCTTACATCGTGGATAACAGAGAGAGGAAGCAGGATTTCTTATTTCTTCTTATAAGG  
GTATTAATCCCAATTTATAGGACTCTGCTTCAATTAACCTAATTAACCTCCAAAGGCCCTACCTCCTAATGTATCACAC  
TAGAGGTTAGAATTTCAACATATAAATTTTGGGGGCGAGAAAACATTCATTCCCTAACATAGAGGGGTGAGGAAGATGA  
GAGGAAATGTCCCTTTAGAGACTGAATTTGGGAAGTAAACCACTTTGTGTAATATTGCAGTAGGTACTGCTATAGTGAG  
GAATGGAGAGTGGATGGGAGAACTCTCTTGGTAAGAAGAAGGAAGAAAAGATGTAAAGTAGTGCCTATGATCTCTG  
ATGAATTTACTTTACTCAAACCTTTTCAATTAACCTCTACAAACAAAAAAGAACCTGAGAAGACTTTTGTAGTCACTTTCC  
TGTGCATTGAGGAATTTGTCCAGAGGGACTAGGGAAGCCCATCAGACTAATGGCAGACCTCTTAGCAGAACTCCACAAG  
CCAGAAGAGATTGAGGACCAATCTCAACATTCTTAAAGAATTTTCAAGCAGAGAAAACCTCAGGATTAAGAACTCAC  
TCAAAATCCACACAATTTTATGGAATTTGAACAACCTGCTCCTGAATGACTCTGCTGTTCAATAATGAAATTAAGGCAGA  
AATCCAGAAGTTCTTTGAAACCAATGAGAACAAGAGACAAATACCAGAATCTCTGGGACACAGTTAAAGCAGTATTA  
AGAGGGAAATTTATAGCACTAAATGCCACATAAGAAAGCTGGAAATATCTCAAATCGACACCCCTAATATCACAATTAA  
AAAGAGCTAGAGAGGCAAGAGCAAATTAATCCAAAGCTAGCCGAAAACAAGAAATACTAAGATCAGAGAAGAAATTGA  
AGGAGATAGAGACATGAAAAACTCTCCAAAAAATCAACAAATCCAGGAGCTGTTTTTTTTTTTTTGAAAAAACTAACAA  
AATAGATAGACCACTAGCTAGATTAATAAAGAAGAGAGAGAGAAGAAATCAAATAGATGCAATAAAAAATGATAAAGG  
GATATATATCATCACTAATCCACAGAAATACAACTACCATCAGAGAATACTATAAACACTTCTATGCAATACACTA  
GAAATCTAGAAAGAAATGGATAAACTCCTGAACACATACCCCTACCAAGACAAAACAGGAAGAAGTCAAATTCCTGA  
ATAGGCCAATAGCAGTCTCTAAATGGAGGCACTAATTAATGGCTACCAACCAAAAAAATCCTAGGACCAGACTGATT  
CCCAGCTGAATTTCTACCAGAAATACAAAGAGGAAGTGGTACCATTCTCTGAAAGCTATTTCCAAACAATGAAAAGGAG  
GGAATCTCCCTAATCTATTTTATGAAGCCAGCATCATCTGATACCAAACTGGTAAAGAGACACAAACAAAAGGAAA  
ACTTCAGGCCAATATCCCTGATGAACATCCATGCCAAAATCTCTATAAAATACTGGCAAAACCAATCCAGCAGTGTATC  
AWAAAATTTATTCATCATGATCAAGCCAGCTTCAATCCCTGAGTTGCAAGGCTGGTTCAACATATGAAAATCAATACATG  
TAATCCATGACATAAACACAACCAAGACAAGAACCATGATTATCTCAATAGATGCAGAAAAGGCTTTAATAAAAT

Fig. 6. 46



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CAACATCCCTTCATGTTAAAACTCACAATAAACTAGGTATTGATGGAACATTTCTCAAATAATGAGAGTTAATTATG  
ATAAAACCCACAGCCAATGTCATATTGAATGGGCAAAACCTGGAAGCATTCCATTTGAAAACCTGGTACAAGACAAGGATG  
CCCTCTCTCACCCTCCTATTCTACATTGTATTGGAAGTTCTGACCAGGGCAATCAGGCAAGAGAAAGAAAGAGGGT  
GATCAAAATAGGAAGAGAGAAAGTCAAATTGTCTCTGTTGTAGACAACATGATTTTATATTTAGCAAACACCATCATCT  
CAGCCCCAAAATTTCTTAAGTATAAGCAGTTTCAGCAAAGTCTCAAGATACAGAATCAATGTACAAAATCACAAGCA  
TTCTTTTACAGCAATAATAGGAAAGCAAAGCAGAAAGCCAAATCATGAATGAACTCCCATTCATAATCACTACAARGAG  
AGTAAAATACCTTAGGAATAGAGCTAACAAAGGGATGTGAAGGACCTCTCAAGGAGAACTATAAGCCACTGCTCAAGGAA  
ATAAGAGAGGACACAACAAATGGAAAAACATTTTCATCCTCATGGATAGGAAGAATTGATGTCATGAAAATGACCATA  
TGCCCCAAAGTAATTTATAAATTCAGAGCTATGCCCATCAAATCATTCATTGACATTTCTTCACAGAATTAGAAAAGACTAT  
TTTAAGTTTCATATGGATTCAAATAAGACTTTGGATGGCCAAAACAATCCCAAGCAAAAAAGCAAAGCTGGAGGCAGC  
AGGCTACCTGACTTCAAATATACTGCAAGGCTACAGTAACCAAAACAGCATGGTGTCTGTTACTGAAACAGACAAATAG  
ACCAATGGAGCAGAACAGAGATCTCAGAAATAACACTACACATCTACAACCATTTGATCTTTGACAAACCTGACAAAA  
CAAGCAGTGGGAGAAAAGATCTCTTATTTCAGTAAATGGTGGTGGGAGAACTGGCTAGCCAAATGCAGAAAACAGAACTG  
GACCCCTTCTTTATACCTTATACAAATTTAACTCAAGATGGATTAAAGACTTAAATGTAAAACCCAAAAACAATAAAAA  
CAGTAGAAGAAAACCTAGGCAATACTATTTCAGGACATAGGCCAAGACTTCATGACAAAAACCAAAAGGCAAT  
TGCAACAAAAGCCAAAATTGACAAATAGGATCTAATTAAACTAAAGAGCTTCTGCACAGCAAAAGAACTGTCATCAGA  
GTGAACCTACAGAATGGGAGAAAATTTTCTATCTGCCTATCTGACAAAGGTCTAATGCCCAGAATTTACAAGTAACT  
TAAACATATTTATAAGAAAAAAACAACCTCCATCAAAAAGTAGGCAAGGATATGAACAGACACTTCTCAAAGAAGATA  
TTTACATGGCCAGCAACATATGAAAAAGCTCAATGTCTGATCATCAGAGAATGCAATCAAAACCACTATGAGA  
TACCATCTCATGCCAATCAGAACGACAATTATTAAGAGTCAAGGAAATGACAGATGCTGGCAAGGTTGTGGAGAAATAG  
GAATGCTTTTACATTGTTGGTGGGAAATGTAAATTAGTTCAACCATTTGTGGAAGACAGATGCGCAATTCCTCAAGGATCT  
AGAACCAGAAATACTATTTGACCCAGCAATCCCACTTACTTACATACCAAGGGAATATAAATAATTCTACTACAAA  
GATACATGCACCTGTATGTTTATTGACGACTATTTACAATAGCAAAGACATGGAACCAACCAATGCCATCAATGA  
TAGACTGGTTAAAGAAAATGTAGTACATATACCCATAGAATACTATGCAGCCATTAAGGAATGAGACCATATCCTT  
TGCAGGAACATGGATGAAGCTGGAAGCCATCATCCTCAGAACTAACACTGGAACAGAAAACCTGAACACCCTTATTCT  
CACCCATAAGTGGGGGTGGAACATTGAGAACACATGGACACAGAGAGGGAACAACACACACCAGGGCCTGTTCTGGGGA  
GGGATGAGTGGGAGGGAACCTTAGAGGATGGTCAATAGGTGCAGAAAACCCATAGCACACATATACCTATGTAACAA  
ACCTGTATGTTCTGAGCATATATCCCGTTTTTTTACAAGAAATAAAATAAGAAAAAAGAAAATCTCTTGCAACC  
AATGAAAATGAAAACAAAATATACCAAAAACATATGGGATACAAATGAAGCATGTGCTAAGAGGGAATTTTCATAGTGATA  
ATACCTATATTAGAAAAGAAGAGAGGATTTTAATTTAGCAGACTCACCTAGAGAGCACAACCTCTGATTTTGTGAGAAA  
GCCTATCTCCACAGAACCTAAACACACAACTTTCAAGGTAGGGGAGATTGGAATCCAAGAAGATGCAAAAACATTT  
TGCAAGCTGGTAAGTCTCTGGACTGGAGAATATCTGGATCAGGAAGGAGGCAAGATGGTCTGACTAGATGCAGCCAGAAG  
GAACATCTCCACCAAAGGACTGGGACATCAGAAAGACTGGCACACTCTAGCAGATCTTCACAGGGAAGGCACTGAGG  
GCAGATAGAGGGAAGACACAGATGCTGGGCTGCAGAGGGAGGAAGCTGGGAACCCCTGAGCAATGCTAGTGACACCAGG  
ACCGTCTCTGGTCCCAAGAACTCTGGGGATGGGGTGAATTGAACAGGCCAGGAGCGATCCACTCTCGCATGGATCT  
CTGGAATCCTGGCATGGGGAAATCCTTTAACCAACCATGGACATTTGAATTGGCAGAGAGCTGCTTAGAGAAGTGGAA  
GGGACAGAAGTCCAGCCAGTGCAGAGCCCAAGGGTTTGGAGTGGGAGCACCTATAGTGGAGCATGGCCAGGGACACC  
ATCTCCCTAAGCTAGACTTGTTCATAGGAGACTGTAGCCCTAGGGGAACCTGTACCTGAACCTCTGCAGGGAGGTCYT  
GCCCATGAATGCGAGTCCACCTTGAGTACCCCTTGGTCTGCTGGCCTCTCCAGGGGCCCCAGCCTGGCTGCAGGTGC  
TTGCAGTGCAGTCCCCAGGTAGCTCGTGGGGGCTGCATTACAGCTCTGTTCTAGTGGGTGAGGCTGACTGGCAGAG  
TGCTCCAGCATAGCAGTCCCTGCAGACACCAGCATGCTTGTGGCCTCCCACAACTGCAGCGTCCCCATGCTACTTGGC  
CTTACATACCAATGGCCACCCCACTTGTTCGCCACCATGTATTGTGATGGGCAGACTTTGCTTCTCTTACC  
CCACCAGGATATGTGCATGCATGCATCCTACCATCCGCTGCTGCCTGCATGAGTGCACCTTGTGCAACACCCCACT  
AAACCACCATTTGTTGTTAGAGCACTGGGTGGCAGAGGCCACCAGCCCTGCCTTTGCCAGCATTCTGCTTGGCACC  
ACACTTCCAGCAATGTGAACTGGACACAGAGAACAGCAGAGTCAACCCCTGCCTTGAGCAGCCACCACTGCCTGCATGA  
AAACACACAGAGGGTCCACAGTCTTGTGTCCATCAGCACTTCAACCCCATGCTAATACCACCACCAGCAGGAATGCACA  
CACAGTCACTGGTGGGGGTCCCCGCCCCCAAGCCATGTGCCCATGTGGCCACCCTGCTGCTGTGAATGCCACACAGA  
GGCCAGAACCCAGCACCTGCTAGCACACTGCCCATCCAACAAGCATGCACCCTGCTGTGTTGCCACTGTCACTGCTG  
CTGGCAGATGCAAAATGAGAACAGATTCTGCTGCTCTGCTGCTATGAAGCTCTTTGCTGGCACTACCCATCAGAGTGT  
GTGACCAACAGTCCAGAAGTAACTCAGCCCCCTCAGTGCAGCAGGTTCTTAACCTTGAGGAGCCAGAAAACAAGTTGG  
GAACTGATACAGTCCCCAGGGTTAGAGCACACAGTCCACAGTCTGAGTTGAGTCTTGGTCCCTAAAATCTTCCA  
GAAATTGAGCCAGTCAACTGAACCCACCTTATACCACCATGAACACCCCAAGGTCAATGAAATAGAACAAAAGAAAAA  
TCCAAAGGACAGTAATTTCAAAGATTGGAGGAACAGGCCAGGCGTGGTGGCTCACACCTGTAATCCAGCACTTTGGGA  
GGCCGAGGTGGGTGGATCAGAGGTCAAGATATCAAGACCACCTGGCCCAACATGGTGAACCCCATCTCTACTAAAAA  
TACAGAAAACCTAGCCGGGCATGGCAGTGGGCGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCGTGA  
ACACGGGAGACGGAGCTTGCAGTGGGAGGAGCTGACCACTGCAGTCCAGACTGGGCAACAGAGCGAGACTCCATCTC  
AAAAAATAAATTCGAAAAAGATTGGAGGAACATCAGAACCAAGATGAGAAAAACAGGTAGGAACCTAAGAA  
CTCAAAAAGCCTGAGTGTCTTCTTCTCCAAATGATCATACTAGTTCTCCAGTAAGAGTTCTTAAGTGGGTGAGGTG  
GCTGATATGACAGAAATAAATTCAAAATATATAGAAATGAAGATCATCAAGATTGAGAAGATGTTGAACCAATC  
TGAGGAAGCTAGGAATCACAATAAATAGTACAGAAGCTGACAAACAAACACTCAGTATAGAAAAGAGTGTAAACCAAC

Fig. 6. 117

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CTGATAGAGCTGAAAAACACAGTACAAAAATTTTATAATTTAATTGTAAGTATTAACAGCAGAATAGACCAACCTGAG  
GAAAGAATCTTAGAGCTTGAAGACTGGCTTTCTGAAATAAAATAGTCAGACAGAATAAAGAAAAATAATAAAAAGGA  
ACAAACAAAACCTCCAAGAAATAAGATATTATGTAAGAGAGACCAATCTATGACTCATTGGCATCCCTGAAAGAGATGG  
AGAGAATGGAAGAACTTGGAAAACATATTTCAGAAATATCATCCATGAGAACTTCCCCAACCTAGCTAGTGAGGCCAGC  
ATTTAAATTCAGAAATGTCAGAGAACCCCATAGAGACTTACAGAAGATCATCCCCAAGACAGACAATCATCAGATT  
CTCCAAGGTTGAAATGATAGAAAAATGTTAAAGGTAGCTATAGAGAAAAGGACAGGCCCTACAAAGGGAAGTCCTTC  
TGACACAGCAGACCTCTCAGCGGAACTCTACCAGCCAGAGAGATTGGGGGACTATATTAAACATTCTTCAAAAAAGA  
TATTCCAACCTGAGAAATTTGATATCTGCCCAAATAAGTGTCTATAAGCAAAGAAGAAATAAGATCCTTTTCAGACAAACA  
AATGCTGAGGGAATTCCTTATCATAGACCTGCCTTACAAGAACCCCTGAAAGAAGCACTAAATATGAAAAGGAAAGACC  
GTTATCAGACACTGCAAATACACAGTGTCTCTATAAGTACACAGACCAGTGACTCTATAAGCAACCCACACAAACAAGT  
CTGCATAGTAACCACTAACAACATGATGACAGGATCAAACCCATACAAATTAATACCAACCTTCAAGGTAATGTCTCT  
AAATGCTCCCAATTAAGAGGCACAGAGTGGCAAGCTAAATAAGAGATGACCAATGGTATGTCTTCAAGAGAC  
CCATCTCATATGCGGTGACACCCATAGGCTCAAAATAAGAGATGCGAGAAAATCTACCAAAAATGCAAAACAGAAAA  
AAACAGGGGTTGCAATCCTAATTTTCAGACAAAACAGACTTTAACTAACGAAGCTCAAAAAAGATGAAGAAGGATATTA  
TGTAATGGTAAAGGTTTTAATTCACAAGAAAAGCTGACTATCCTAAATAGGTACATACCCAACAGAGGAGCACCAGGA  
TTTATAAGCAAGTTTTTATAGATCTTCAAAGAGAAATGGACTTCCACACAGTAATAGTGGGAGACTTCAACACCCAC  
TGACAGTATTAGATCATTGAGGCAGAAAATTCACAAAGATATTTCAGGACTTGAACCTCAACACTGGACCAATGGACCTA  
ATAGACATCTACATATCTCTCCACCCAAAAACAACAGAATATGTATTCTTCTCATCACCAAATGGCAGACACTCTAGAG  
TTGATCACATATCAGACTTTAGACAATCCTAAGCAAGAAACAAAGTCAATTTGAACCAAGCTTTTGAATGCCTTTTAGTGA  
AATCAAGACTAAGAAAATTTGCTCAGAACCATACTAGTTACATGGAACTAAACCAACCCATTTTGAATGCCTTTTAGTGA  
AATAATGAAATTAAGCAGAAATCAAGAAGTTCCAGAAAATAATGAGAACAAAGATAAAATATACCAAGATCTCTGGG  
ACACAGCTAAGGCAATGTTAACCAGGAAATTTATAGCACTAAATGCTCACATCAAAAAGTTAGAAAGATTTAAAAATAAA  
CAACCTAACATCACACTAAATGAAGTAGAGAGCAAGAGTAAACCAACCCCAAACTATCAGAAGACAGTAAATAACC  
AGAATCAGAGCTGAATTGAAGGAAATGAGACATGAAAAGCCATTCAAAAGATCAATGTATCCAGGGGCTGTGTTTTTG  
AAAAATTAATAAGACAGATGGACTGTCTAGCTAGACTAATAAGAAAGAGAGAGAGATCCAAATAACACAATTTTTAA  
AATAAGATAGTAATTACCCTGACCCCAAGAAAATAACAAATACCATCAGAGACTACTATGATGGTTTTGTGTACTATGC  
ACACAACTAGAAAATCTAGAAAATTTGATAAAATCCCTGGACATATACACTCTCTCAGACTGAACAGGAAGAAATGGA  
ATCCCTAAGCAGACCAATAACGAAGTGTGAATTTGGATCAGTAAATTTATCAGTAAATAGCCTACCAACAAAGAAAGT  
CCAGGACCATTCATATCAGACCCAAATTTCTAGTAGATATACAAAGAGAGCTGGAATCATTCTTATTGAACTATTCCA  
AAAAATTAAGGAGGAGGGACTCCTCCCCAGCAGATTCTATGAGGCCAGCATCATCTGTATTTAAAAAAGAAACAC  
CTGGCAAAACACATAGAAAATAAACTTCAGGCTAGCATTCTTGATGAACATGCATACAATAATCTTCAACAAAATATTA  
GCAAAATGAATCCAGGAGCACATCGAAAACTAATCCACCACAATAAATTTGGCTTTACCCATGGGAGGCAAGGTTGGTT  
CAACATACACAAATCAATAAATGTGATTTCATCATATAACAGGACCAATGCAAAACCCACATGATTATTGTAATAGATG  
CACAAAGGCTTTTTGATAAAATTCATCACCTCTTCATGTTTAAAAACCCCTCAACCACTAGGTACTGAAGGAACGTACCTC  
AGAAAAATAAGAGTTATCTATGACAAATCCACAGCCAACATCATACTGAATGGGCAAAAGCTTGAAGCAATTCCTTGA  
AAACCAGCACAAGACAAAGACGCCCCCTTTCTCACCCTCTTATCAACATAGTATTTTAAGTCTGGCCAGAGCTATCAG  
GCAAGAGAAAGAAATAAACAGCAAGGCAATACCAACAGCCAAGGCAATACCTAAGCAAGGAGAACAAAAAGAACAAAT  
CTGGAGGCATCACACTACCTGATTTCAAATATTCTACAGGGATACGGTATCCAAAACAGCATGATTCTGGTATAAAAA  
CAGAAAACATGACCAGTGAACAGAAATAGAGAGCCCTGAAATAAGGCTGCACACCTACAACCATCTGATCTTAGACAAAG  
CAAAGGGGAAAGGACTCCCTATTCAATAAATGATGTCTAGAAAACCTGGCTAGCGATATGCAGGAGATTGAACTGGACC  
CATTTCAGTACACTATACATAAAATTAACCTCAAGATGGGTAGAGACTTAAACGTAAACCTCAAGCTATAAAAGCTCT  
GGAAGACAACCTAAGCAATACCATTCAGACATAGGAATGGCAAAGATTTTATGATGTAGATACCTAAAGCAATTGCA  
ACAAAAGCAAAAAATGATAAATGGGATCTAATTAATACAGAGCTTCCTCACAGCAAAAGAACTACCAACAGAGAAA  
ATAGACAACCTACAGAAATGGGAGAAAATTTGCAACTATGCATCTGACAAAGTTCTTATATCCAGCATCTATAAGGA  
ACTTAAATTTATAAGAAATTAACAACCCCATTAAGTGGGCAAGGACGTGAACAGACACTTTGCAAAAAAGTACG  
TGCAGCTAACAGCATATGAAAAAACTCAGTATCACTGATCATTAGAGCAATGCAAGTCAAAACCACGAGATGCCATC  
TCACATCAGTCAGAAATGGCTATTATTAAAAAGTCAGAAAATAACAGATACTGGTGAGCTTGTGGAGAAAAGGAAATATT  
TATACACTGTTGGTGGGAATGTAAATTAGTTAAACTATTGTAGAAAAGTAGTGTGGCAATTCCTCAAAGAGCTAAAAACA  
GAACTACCTGTCAACCCAGCAGTCCCATTACTGGATGTATACGCAAGGGAATAGAAAATCTTTTCATCATAAAGACACAT  
GCTCACATATGTTCACTGCAGTACTATTACAACAGCAAGACATGGAATCAATCTAAATGCCTATCAATGGTAAACTG  
AGTAAATAAATTTGTGGCAGATATCTCCATGGCATACTATGCAGCCATAAAAGGAATGAGATCGTGTCTTTGCGGGA  
ACATGGATAGAGCTGGAGGCTGTTATCTTTAGCAAACTAATGCAGGAACAGAAAATGAAATAGTCAATTTCTAACTTA  
TAAGTGGGAGCTAAATGATGAGAAGACATGGACACAAAGATGGAACTAGGCTTAGCACTGGGTGACAAAATAATCTG  
TACAACAGACTCCCATGACACAAGCTTACTTATATAACAACTTGCACATGTATCTCTGAACCTAAATAAATGTCTTT  
TTAATATCTGGATCCAAATTTGTTTTTACTGGCCAATGGAAAAGATTTTGGCCAGATGGCTAAATCTTTGAATAATA  
TTTGTGAAAAAGACTTTTAAGATTTTGAATAATATTGTGAAAAAGACTTTTAATAATATTAGTGAAAAAGACTTCTCT  
TACAGAAGGCAATTAAGTCTTAATTTAATTTGGCAGCTTTTAATGTGGCAATCTTTGATTCTTTTATTCTTTTAGATGG  
CTGTGTGCACCAATTAAGAAATGCATCCCATTTGCTAAAGAAATTAATAATTAAGAAAAAAATCTTAAACAATTTAA  
TACTACATCTCAAGGAAGTAGAACAATAACAACAGACTAAGGCCAATTAGGCAGAAAGAGGGAATTAACAAGATTTG  
AGCAGAAATACATGAAACGGAATTCAAAAATAATAGAAAAAATAAGACAACCTAGGAATTTGTTTTACTGTTTTTT

Fig. 6. 118

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ATAAATATAAACTAAATTGGTAAAACCTTAAAGTAACTAAGTAACTAGCAAAAAAGAGCGATGCTCTCAAATAAAAAAATCAG  
AAATGAAAGAAGAGAAATCAAAATGATGCCACAAAATAAGAAAAGAAATCAAAAGAGATAACTATGAACAATTATGTGCC  
AACAACTGGATAAGCTAGAAGAAATGAATAAATTCCTAGAAAACATACAATCAACCGAGACTGGATTCTGAGGAAGCAG  
AAAGTCCGAACAGACCTATACTAGTATAGATATTGAAATAGTTATTACAAAGCTCCCAGGAAGGAAAAGCCAGTACC  
AGGTGGCTTCACTGGTGAAATTCTAACAAACGTTTAAAGAAAAATTTATACCATTTCTCTAAAACCTTTTCAAAAAAT  
TGAAGGGGAGAGGAACATGTCCAAATTCATTACTCTGATACTAAAGTCAGACAAAAGCACCACAAGAAAAACAACTA  
TAGGCCAATATCCCTGAAGAATGAACATACAAATTCCTCAACTAAACCCAGCAAACTGAATCCAAGAGCACATTAAGG  
GGATTATACACCATGACCAATGGGATTTGTACTTGGGATGTTAGAAATGGTTCAAGTGTGTAAAAATTAACGTGAAATTC  
CACATTAACAAAAATAAGCATAAAAACATGTGATCATCTCAAGATACAGAAAAAGGGTTTGACAAAATTTAACATCTTT  
TAATTAAAAACTCAAACTAGTAATAGATTATGTCAAATACAAATACAAATATTATATACCTCAACATAATAAAGCCAT  
ATATTAATGCCCATCACTAACGTCATACTCAATGGTGAACAAACCGAATGAAGGCTTTTCTCTAAGATTAGAAAACAG  
ACAAGGATGCCCACTTTCACTGCTTCTATTCAAGCAGGATACCTTGAAGCCCTATCTAGAGCAATTGGGTAAAGAAAAAG  
TAAAAAGGCATTAAATTTGGGAAGGAAGAAATAAATTTTCCCTGTTTGCAGGTAACATGATCCTATATATAGAGAAAA  
CTCTGAAGATTCAATTAAGAACTGTTAGAATTAACAAATGAATTTAGTGAAATTAACAGAGTACAAAATCAACATACCA  
GAATCAGTTGCACTTTCTATACACTAACACAACTATCTGAAAGGAAATTAAGAAAAAATGCCCATCTAACTAGTGC  
CAAAAAGATAAAATAATTTAGTAAATACACCTTAACCTAACAGGTGAAGATTGTGTATTAAAACTACAAAA  
CATTGATGAAAGATACTAAGCAAAATCAAAAGACATTGAATGTTTCAAGAACTAGAAGCATTGTTTAAATTAATCCCA  
TACTACCAAAAGAAATCTACAGATTCAATGCAATCCCTATCCAAATCTCAATGTCAATTTTTTACAGAAAGTGAACAAAA  
GCTCTAAATTTATATGGAGCCATGAGTCAAGAAAATAACCAATCAATCTTGAAAAAAGAATAAAGCTAGAGACATCA  
CATTTCTGTATCTCTAGATATGTTACAAAACACAGAGATCAAAACCAATATGATCTGGCATTAAACAGACATATAGA  
CCAATGGAACATAAGAGAATCCAGAAATAATCTATGCATACTTGGTGTGTTTTATTCTATTGGGGCTACTATAATAAAA  
TACCATAAACTGGGTAGCTTATAACAACAGAAATATATTTCTCACAGTTCCAGAAGTTTGGAATTCAAAATTTGAGGCA  
CAGGTACTGATGGACTGCTTCTCATAGTTAGTGCTTCTCACTGTGTCTCACATGGTGGAAAGGTGAAGCATTCTCT  
CAGATGTCTTTTATTCTGAAGTCTCCACTTTTATGACCTAATCATCTCTGTAGTCCCTGCTCTCTAATGCCATTCA  
CATATAGATTAGGGAGACAAAGATTCAACATATGGATTTTGGGTGACACCAACATTCACTCTATAGCAACAGTCAACT  
GACGTTTGATAAAGGTGTCAAGAATACACATAGAGATTGGAGAGTCTCTTCAACAAATGGTACTTGGAAAACTGGATAT  
CCATATTAAGGAATGAAACTGGATGCTTGTCTTACATCATATGCAAAAATCAACTTGAAGTGGCTTAAAGATTAAACAT  
AGACCAAGACTATAAACTACTAGAAGAAAACCTTCATGACATTGGTCTTGGCAATGGTTTTCATGGATATGACATCAAA  
AGCACAGGCAACAAAAACAAAGTAAACAAATAAGAATACATCAAACTAAAAAGCTTGTGGGTGAATTTGTTGAGCTCA  
GGGTTCTGAGGCCAGCCTGGGCAACATTGTAAGACCTTGTCTCTCAAAAAAATAAGAAAAAATTAGCTGGATATGGT  
AGGCTCACCTGTAGTACCAGCCACTTGGGAGGCTGAGGTAGGAGGATTGCTTGCACCTGGGAGGTGCCAGAGTTGTC  
AGTGAGCTGAAATTTGGGCCACTGTACTCCAGCCTGAGTGACAGATCCAGACCCTATTGCAATAATAGTAATAATAATA  
ATTAATAAAATAATGATATGAATCAACAGAGTGAAAAGGACACTTACAGAATGGGGGAATATTTGCAACCGTATATC  
TGATAAAGGGTTAGTATCCAAAATATCTAAATAAACCCTTCAGGTTATTAGTTAAATAAAGAGAGAGAAAAATAA  
ATAAATAAATAAATAACCTGATTTAAACATGGGCTATGGACTTGGATAGACATTTCTTCAAAGAGACATACAAATGGC  
CAACAGATATTTAAGAAATACTCAGTGTCACTAATCATCCAGGAAATGTGAATTAAACTATAATGAAATATCACTTA  
ACACTTACTATAGATAGAAATGGCTACTGTTAAAAAAGACAGAAATAGCAAGTGTGACGAGGATGTACAGAAATTTGAA  
CCCTTGCACTGTTGTTGGTGAAGATGCAATATGGTGCAGCTTTTGTGGGAAACAAATGAAGTTCTCTAAACATTTAAAA  
ATGCAATTACATGATCCAGCAATCCCACTTTGGGGTGTGTTTATTCAAAAGAATTGAAATCAGGATCTCAAAGATGTATTA  
GCCTCTTATATTCTATTGTAGGATTATTCACAATAGTTAAGATTTAGAAACAACTTAAGTGTCTATTGACAGATGAATA  
GATGAGAAAAATATGGTATATAAATAGTGGACTATTATTCAGCCTTAAAAAAGCAGGAACATTGCCGTATGTGACAACA  
ACATGGATGAAACTTAAAGACATTGTGCTAAGTGAATACATGAGTCATAGAAAGACACATATGTCATGATTCCACTTA  
TATGAGTTATCTAAATAGTCAAATTCATAGAATCAAAGAGTTGGATTGTGGTTACCAGTGGGTGGAGGTAGAGAGAAG  
GTAGAGAGAAATGGGGAGTTACTAAACAAATGGGCGTAAAGTTTCAGTCAAGAAAGATGAATAAGTTCTAGGGATCTGTT  
ATACAACATTGTACCTATAGTCAACAATAATGTATTGTACACATATGCATTTGTTAAGAAAGTAGTTTGTGTTTAAATG  
TTTTTAGCACAATTTTTTAAATAAAAAAGACAGTGGTATTCTAATTTTCTTTCTTTTCTTAACTCAATTAGAATTTT  
TAAATTTGGGGCATGTTCTTACATTTATAGGTAACAGTTCAATTTATTATTTTGGACATAGAGCAATTTATAAGGAAAT  
TAAAGGAAAACTCCCTTAAATTCATCTTCTTCTGATATCAAGAACATAGACTGAGCTTTCTCTATCTCTTTCTCAGT  
TCTAGTTTATATTTGCAAGGTGTGTCTGGGCCAGTCCAATCTTTCTTCTACTGTTCTCATCTACCATATCAATTTAC  
ATTACAGATCACATGCCGAACCTTTAGGGGAGAGGACAAATTAAGTGGATTAACAATGAAAGATATAGAATGCTCAGGA  
TATTTTCTAGGTTTAGGAGACTTGAAGGAAATGAGAAATGAGAAATGAGAAATGAGAAATGAGAAATGAGAAATGAGAAAT  
AGGAGAAAAATTTAGCTGTGTCCAGAGAGGACAGAGATGCTATCTTTCTATGCTTGTGTTTGTGTTTGTGTTTGTGTTT  
TATTATTGTATTGTTAATAATCATTGAAGTAGTGTGAGAAATTTTCAAGAGAGTGAAGTAGAGCAGTTTCTCTGAAAAA  
CTTATAGATGGTGACAGATGACCACATAATGTGTGACAGTAAATGCTGTATTGAGCTTCTGCTGTATTATAGAAAG  
AACATATGAATAGATAAAGCACACAGTTTCTCTTTTCACTATGTCTCAGGAGAAAACCAATGCACATCGGCATATATG  
GAAACAAATGAGATTAGTTAAAGAAAGGAATTTAAATTTATGTAGACTAAGCCAGGGTAATGCTTACGAATGAGATGACT  
CATCTAATAAAGCATCAAAGAGAAAACTGTTGTTTCACTGATTTTCTGTTTCTGTTTCTGTTTCTGTTTCTGTTTCTGTT  
GAT  
AATGATAAGATTAGTTGAATTAAGTAATTTCTAGACCCCAATTGATTATTTTCACTTTCTAGGTCATATAGTTGATC  
CTTGTGCAATGAAGTGGTTGGTTGTAAGAGTCTACTATCTTATCAAAAGATTGTTCAAAAACATCTCCATGTACTA

Fig. 6.119

AATACTATCAAGCAAAAAATATATTGTGTATAGGGAAATACAGTATTTAAAAAAATTTGGTAGAATCTACAATGAACCTCAA  
ACAAATTTTACAAGAAAAAAACAAACAACCCCATCAAAAAGTGGGCGAAGGATATGAACAGACACTTCTCAAAAGAGAC  
ATTTATGCGCCAAAAACACATGAAAAATGCTCATCATCTACTGGCCGTGAGAGAAATGCAAATCAAAACCACAATGA  
GATACCATCTCACACCAGTTAGAATGGCGATCATTAAAAAGTCAGGAACAACAGGTGCTGGAGAGGATGTGGAGAAAT  
AGGAACACTTTTACACTGTTGGTGGGACTATAAACTAGTTCAACCATTGTGGAAGTCAGTGTGGTGATTCTCAGGGAT  
CTAGAACATGAAATACCATTTGACCTGCCATCCCATTACTGGGTATATACCCAAAGGATTATAAATCATGCTGCTATA  
AAGACACACGCACACGTATGTTTATAGCTGCATATTACAAATAGCAAAAGACTTGGAAACCAATGTAAATGTCCAACAAC  
GATAGACTGGATTAAAGAAAATGTGGCACATATACCAATGGAATACTACGCAGCCATAAAACATGATAGAGTTCATGTCTC  
TTTGTAGGGACATGGATGAAACGAAACCATCATTCTGAGCAAGCTATCGCAAGGACAAAAACCAACACGCATATTTCT  
CACTCATAGGTGGGAATTGAACAATGAGAACACATGGACACAGGAAGGGGAACATCACACTCTGGGTACTGTTGTGGGG  
TCGGGGGAGCGGGGAGGGATAGCATTAGGAGATATACCTAATGCTAAATGATGAGTTAATGGGTACAGCATACCAGCAT  
GGCACATGTATACATATGTAACCTGACATTGTACACATGTACCCTAAAACCTTAGAGTATAATAATAAATATGAT  
AATAAATTTGTAACCTAGTTTAAAGTCTATGTAACCTACTCACACAAATAATCACAATAAGATGTAATATAGAAATGTGCAT  
GTAAACATATAAATTTATACATAAAATAATAGATCATAGCCCTGATGCATGCGTGCACAAACACACACACACACA  
CACACACACGACACACACACTTGCACATATTTGCAATAGCTAGCTACTAAGGAATCTGATTAAACATAGATTCTCTATC  
TTGCATATCCGATTTCTTAATAGCAGAATTAAGAGCTTCTTGGAAAGAAAAGGCTTTATACTCAAAATCTGCTTTCTGAA  
TCCTTTTGTAGTTGAGCACAAAAGGAAACCAAAAGACCCAAGAATAGCAATGCAATGTGTGATTGAAGGTTTGTGTAGG  
AATTATTCACTATTGTATTTCTTTTCTGCTACATTACAGCATAGGCTTTGCCTAGAGGCAAAAGAATTAAGAATTAC  
TTGCAGTTCCTACTCTTTTGCAGTCAAGGCAGTAATAGGGTGATGGATAAGGTGTATAGAACAGCAGTCTCACCAAT  
GCCCTTGA AAAATCAAGCAAAATAGATGGCTTCAATTTCAATTCTAACCCTGATATGGCCTGACATTTATCTAGGGAG  
CAGAGATGCCAATATAACTGAAGGTTTGAATGGCCCTTTGAGGAAAGGTGATGAGGTATCCATTGATTTAATCTAA  
GAGGAGATGGAGAAATAATACAGAGGGGACTTGATTTCCATGCACACTGTTTGGAGGACCGCATCTCAACAGTTTTTG  
AATGGCATATTTCTAGCTGTTTCTATGTGGCTTTATGCTGATAGTGTGAGTCAATGAACAGAGCTTGAAGTTTAAATCAG  
AAAATATTACATTTTATAAGTGAAGGGTGCAAAATAAGAAGATTGCAAGTAGCGCTGCCTGCACCTATCATTAATGCT  
TGTGTGGATTTTTTCTAATTGAAAACAGCACACAGAGAGCTCTGAGTATGAGATGTAGTTATACAAAAAGGCATAAGA  
TGCTAGACACCTTCAAATACTGGGTGTTCTCCTTACTAGCCATATGACCTTAAAGCAATGTATTTAACTATTCTTTGTT  
CTCATTTTCTCATTTATATAAATATGCACAATAAACTTACCTTATAGTTTGTGTTCAAATATAAAATGAATAAATATT  
GTTAAATATTTCGAGCATTTCTTGGTACACAGTAAACCTCCGTAAGTATTAACCTTTTATGGATAAAAACTTTTAAAA  
AATGGAATAGATTTTATTATTCTGATTATGAAATATATGTATTATTATTTAAAGATTTTAAAGAAAGATG  
CAAAGAGAAAAAATTACTTAAATCAATTTGTCTCAGATAACTATAGTGAACATTTAGGTATCATAGTTCAGGAAGA  
CTTTTGTGTTCAAAGATGCATAATGTATACAATTTGTGTCATGGGCACATCTCCTCGGGCAATCTATGGCTGACCCCT  
ACTCCATCCTACCCCTAAAGTAAACATGCATTTTGACCTGTATCACTGTCTGTCAAATCCATGCTCCTCAAAGGC  
AGTATCTTCTGTAAACCTCAATCTTTTTATTACTATCTAGATTCTCAGGCTTAATTGTTCCAAATATGCCAGCCATC  
ACCTCCATGCAAACTCACTTACCTACCTCTTTATCCATCAAAAAATATCTATTAAATCAGTTATACTTACTTATTTA  
GCCTTAAATATTTTAGCTTTTGTGCTAAGTGCCCTACATATAGCATTTTTACTCTTCCAGATAGCTTTCAAGGGAGCT  
TTCATAACAACCATTTTAGCATTTGTTTGCATCTCATCTCAATCTCCATCTCTTCAAACATAAACTAAATTTCTCCC  
TTGGCAAGGTTGGCCTACACCAGGAACAAGCAAGGAAAGCCACCTCTGAGGCTGAAGCAAGATGGAGTCAGCCATG  
CTAGCCTTCTCTCATTTGTTATAATCTTTGCAAAGCTGGTTTCATATTTTACTAATCTTTCTCTGTTAAATGGACAAACA  
TCCTTCTTGATGCTACTTCACACACCTTTTCAAACCTCTCTGTACTTGACACAATTAGACAAAGCATTTGCTCAATAAA  
TATTATAAAGTTAAGAAAGAATCACTTTATACCTAAGAGTGGATCCTAATGTTTACATAAAATATATCTCTGTATTGAG  
GTTCTCTCTTCTCCCCAATACCAAATCTTTCTTTCTTTTCTTTCTCTTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTT  
TTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTTCTTT  
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CTGGGTTTTAAGCCCTGCATGCAATTAGCTATTGTCTTGATGCTCTCCCTCCCTCGTGCCCCATGACCCACAGGCC  
CTGGTGTGTGTTGTTCCCTCCCTGTGTCCATGTGTTCCATTGTTCAACTCCACTTATGAGTAAGATGGATTCTGTG  
TTGCTTTTCTGATCCTGTGTTAGTTTGCTGTGAATGATGGCTTCCAGCTTCATCCATGTCCTGCAAGGACATGAACT  
CATTCCTATTGTGGCTGTATAGTATTCTATGGTGTATATGTACCACATTTTCTTTATCCAGTCTATCATTGATGGGCA  
TTTGGGTTGGTTCTATGTCTTTGCTATTGTAATAATGCTGCAATAAACATACATATGACGTTGCTTTTATAATAGAAT  
TATTTATATTCTCTAGGTATTTACCCAGTAATGGGATCTGGGTCAAATGGTATTTCTGGTTCTAGATCCTTGAGGA  
GTTGCCACACTGTCTTCCCAATAGGTTGAACTAATTACATCCCAACCAAGTAAAGGTTCTCTTTCTTTCTCCACA  
GCCTCTCTAGCATCTGTTGTTTCATGACTTCTTTTAAATAGCCCACTTCTGAGTGTGAGATGGTATCTCATTGTG  
GTTTTGATTTGCATTTCTTTAATGATCAGTGATGTTGTGCTTTTTTTTTCATATGTTTGTGTGCCACATGAATGTCTTCT  
TTTGAGAAGTGTCTGTTCATGTTTTTGGCCACTTTTTAATGGGTTTTCTTGTGTTTTTCTTGTAAATATGGTTAAGTTC  
CTTGAAATTATGGATGGTAGCCCTTTGTGAGATGGGTAGATGCAAAAATGTTCTCCCATCTGTAGATTGCCTGTTC  
ACTCTGATGACAGTTTCTTTTGTCTGTGCAGAGCTCTTTAATTAGATCCCATTTGTCAATTTTAGCTTTTGTGTGATT  
GCTTTTGGTGATTCCATCAATAAATCTTTGCCATGCCTATGTCGTGAATGGGATTGCCTAGGTTTTCTTCCAGGGTTT  
TTATGGTTTTTGGGTTTTACATTTTAAGCTTTAATCCATCTTGAGTTGATTTTGTATAAGGTGAAGGAAGGGGTCCAC  
TTTCAGTCTTCTGCATATAGCTAGCCAGTTTTTCCAGCATCATTTTAAACAGGGAATCCTTTCCCATGTGCTGTTT  
TTGTCAAGTTTTGTGAAGATCAGATGGTCTTATATCTGAGGTCTCTATTCTGTTCCACTGGTATATGTCTGTTTGA  
TACCTGTACCATGTTTGGTTACTGTAGCCTTGCAGTATAGTTTGAAGTCAGGTAGTGTGATGCCTCCAGCTTTATTCT

Fig. 6.120

TTTGGCTTAGAATTGTTTGGCTATACGGGCTCTTTTATGGCTCCATATGAATTTTATAGAGTTTCTTTCTAAATCTCG  
TGAAGAAAGTCAATGGTAGTTTGTATGAGAATAGCACTTAATCTATAAACTACTTTGGGCTGTATGGCCATTTTCATGAT  
ATTGATTCCTTCCATATCCATGAGCATGGGATGTTTTCCATTTGTTTGTGCTCTCTTATTTCCTTGAGCAGTGGTTTG  
TAGTTCTCCTTGAAGAGTCTTCATGTCCCTTGTTAGCTGTATTCTTAGGTGTTTTATTCTCTTTGTAACAATTGTGA  
ATGGGAGTTCATTATCATGATTTGGCTCTCTGCTTGCTATTGTTGGTGTAAAGAAATGCTTGTGATTTTCACACACTGAT  
TTTGTATCCTGAGACTTTGCTGAAGTGCCTTATCAGCTTAAGGAGATTTGGGGCTGAGACAATGGGGTTTTCTAAATAT  
AGGATCAAGTTGTCTGCAACAGAGACAATTTGACTTTCTCTTTTCTTATGTAACGCTTTATTTCTTTCTCTTGCC  
TGATTGCCCTGGCCAGAACATCCAATACTATGTGTAATAGGAGTGGTGAGAGAGGCACTCTGTCTTGGGCCAGTTTT  
CAAAGGGAATGCTTCTCGCTTTTGGCCATTGATGATATTGGCTGTGGGTTTGTGCAAGTAGCTCTTATTACTTTG  
GGAATGTTCCATCAATATCTAGTTTATTGAGAGTTTTATCATGAAAGGATGTTGAATTTGTGCAAGGCCCTTTCTGCA  
ATCTATCGAGATACCAATTACCAAATCTAAGATTACATGGTGTCTGCAAGTGAATAGATCTATGCAAACCTACCCCCA  
AAGTTCAAGGAAGCTGAGAGGCTGAAGAGGCTGACATATCCAGCTTCTCAGGAAAAATGAAAAACAAAAACATTTAA  
TAGCCAGGTCCTCAGGTGGCTGCAAGAGGAGATGGTGGTTCACTGCAAGTGTAGCCCCAGACCTAGGAATTATTGCTGT  
AGTGAAGAACATGTAGGACAGTTGAAATCACTCTCAGGGAAGGCAAGCATGCTATGTAATCTGCCTAAGGGAAG  
GATTTATGGTTGAGGCTGTTTTGAACAAGGGTGAATTTATGTTAAACAGTAGGTAAGTATAACTCTTAGAGGCATTG  
CTGGAACCTGGGGTAAATCAGATGTGATGTTGGTGGACTGACAAATGAAGATGGAGTTGCTTAGATCTCCACATGGGAA  
CAGATAGAAAAAGGTGCTTTTATAACCAAATGTTGGCTTTTACAAAGCTCTGCTGTAATTCTAAATAGATGGAAGAG  
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AGTGTGGGCATATCTACTGGGGGATGGAGAAACATAGAGCAAGAGAGAGAACTTTGTGATGGAATCAAGATTTTCT  
TAAATCTCTCATAGAATAATTATTAGAGTATTTATGAATTTCTTCTCTTCTCAAATATCTTCACTTGGGGTTATTT  
TATCTTTTGTGATCTTGGACTGTCTTTTTTCAAAGCAAGCTTTCTTTAGATGCCTGATGAGCTATGATTATAATT  
TTATTCAAGTTTAAAGGAATGAAAGCTGATTGGGCTCTGACTTGCATTTGCTTTGGAGTCATGGGGCTATGAATTAAC  
AGTTTTCTGGGGGGATCAGAACATGCCAGATGATGGAAGTCTTTTGTCTGGAGCTATTATTGATTTGAAAGGTT  
TTATTTTAGTGAAGTTATAAGAATCTCAAATATTTCTCTAAGCTGGAGAGGCTGTCTCTGGGGTCTCTCTTCTCT  
GCAGGGTTGGATAGTGGCTATTTCTACCCATAGATACTTGTAAATGTGCAAGTCCCATGTCACTCTGTACCCCTTCTCT  
GTCTTCATTGCAATGTGGTGTGTTTGAATTTCTAGCTTTCTGGAAGGCAATTTCTCTCTCTCACTCTGTATTTAT  
ATCCCTTCTAGATAATCTAACCTGTGGTTGACTGTATTTTCATGTGCTATCTCTTTTATCTGCTTTGTATCTATACA  
TCTGTTGACATATTTTGTATTTCTCATGACTCTCTTTTCAGTTCTCTTACTACCATTAGGGTTTTGTACTTTTCTCCCTTT  
AGTGACATCTAAGATGGGAAGATGTAAATACATATGACAGGATCTCATGGAATATGCTATCTAGGTAGTTTCAAG  
ACACAAGATATTATGTAATACAGGTAATTTAAAGGTTACATGGTCACTCTGAGAATCTGAGTTAGGTAGTTAGAGAAG  
TTGCTACTAGAATGCAAGAACTGGGAAGTGGAAAGATCAGACAGCTGCCAACAGTGTCTCTGGTGCCAACAGCTT  
AAAACCTTAGTTCTCAGGAAAACTCCAGTGTGTTTTGGGTTTTGCCAATTACATTATATCATGTATCCACCATTACTGT  
ATCATAAGAATGGAGAAATACATGTTTATTGAATACAGACACACACACACACACACACACACACACACACACATA  
TGACAAATGCCAAAAAGATAGATAGAATCTCTAATTTTATTGATGTTTCTAGTTTCTGAAAGGCTAGAAAGAAATGGT  
ATGGATATCATTTTTCTGAATATACATAAAGGTTGAAATTAATATAACTATTGAAATTTTAAACAAATGAATAACT  
GTGATATGGGATTTATTTTATTTTAAAAAAATGAGGAAGATTTTCATGTTATGATGCTTTTATACGGTATCTCTCGTA  
TGAGTGACAATACTGCCTTTTAAATTTTTCTCAAATGTTATAGGGCAACAAGAGATTGGCAGATGAGCTGTCTTTTT  
ATTGATTTTTAATGGTAACTTGTACATGATTATGGGGATATTCTAACTTTTTATGATTTTTTAAACAACTCTCAGTTCC  
ATCCATAAAAGAGCTTTATGTAGAATACTTTTAGCAGCTTTTAAAGTTTATTTTATCTCTCTCTCCAGGAGACAAG  
GTAAAGTAGAGATTACATTTCTGGAGATATTACTTTTATTTATATCTTTTATAAATATGGATAGACAATTTTATAATA  
ACAGTGCTAACACTGAAAGGAAAGAGTAAGATTTTGTAAATTTATAAATAATCTTATGGGGATGTTATTATTTAACT  
CTGAAGATGTTGTTTCACTTTTCAATTTTGGTTTTCAGTCACTGCTTGCAAGATAGTAATCTCTTAGCATATGAAGTC  
AGCATCATCAATGCAAGAAACAAACAAAACTCAGAACAAATCAAGAAGGCTCAAAGTTTAGCACACTATT  
TATTTCACTGTTTTTATCATACTCAGGAAGGGTTTTAGTGAAAGAACAGGATGAGATTAATCAAAATAGCTCAAAT  
GCTCAAACCTTAAGTTATATATTACAGGAGGCTTTAAATTTCCACCATTTTAAAGAGGTTTCTTAAACCTCAATTTCCG  
GTACCTTGCTGTTCCTTGGGTTTGTAGGATCAGTATTTTCTGCCATTTATCACACTTAAACATAGAGCATCCAGA  
ATCAATAAACTACAAAGCAGAAGATTAGAGAATCTATCTTCCAGAATAATAGTCATACTTTCCCAAACATGTTCTAT  
ACAATTTTAGGGGACTATAGACCTTTGGTATATATATCAGATGTTAAGCTTTTGTTCATTAACTTACTGTAGTCAG  
TTGTAATGCTATGTTGTTAATCTAGAGACAGGAATATATAACTTCTATTTTCTTCAAATGAAAAATGGCTTTGGTCAATA  
AGTACCTATACCCAAATCTTATTTCAATATCTACATTAACAGCATGTTACAGATAGGAATCCAGTATTATATTTAC  
ATAAATTAGTTATTTATCTCGATATTTACAGAGTGTCTAGGCATTTGTGCAAGTCAAAATACATATTTCTGCTCCTCAA  
AACTCAACACTAGCTAATGGGAGACCAGCATCAAATAAAAAAATAAGAGCAATACAGTTTTCTATGTGCAAGACAGA  
CACAGTTCTACAGGGCTGGGGACAGAAGGCACTGAAGAGGAATGGAGAACTGAATGAGGAAAACTTTGGAGAGGAGG  
TGTGGCTGGAGCTGAGTATTGAAATAGGAGAAATATTGTTTCAAGATATTACTCTTTTTATTTTTTTCATGACTGAATTC  
AGGCATACGTACCTTCAAATACCTTATTGTCAGATGACCTAGAAGGCTGCAATGTAAGATAAATACATCCTAACATTTGT  
ATATTGTTGCTTCTCAAATTTCAAACTGTGATTACTTGTCTGTGTTGTTTACTGATCTTTTATTTTCAATTTACTTAGCAT  
CTTCAATGATAATCTGATTGATGTAGTTTACTTTTATCATCAATCTAATATCTAGTTTCTAATTTTATTTCTGTGTAGCT  
ACTTTAGTTTCTCAAAATATAAGTGGGATGAAATTTATACCTGAGCCAAATAGAAGAACTCAAGACTTTTATTTGCGT  
TAATGTAGGATTTAAAAACCAATTCAAAAACAATTGTTTATATGTTGGGAAAAATTCCTTAAAGTTTCTGTTGATAGGT  
ATTGGAATAGGTTTCTAGTAAGATATTAATGTGTCATCCAAATAAATTTTTAGGTTACATAAACACTGATCTTGAAT

Fig. 6. [2]

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AAAATAGCTATAGTTCTACCTGGAGGTAGAGAGTCATAATAATATCAAATTAGAGCTCATGTTTGTGTGTGTATGTGTT  
TGCATACTTGTGCACGTGCTGGCTTTTATGTACAAAATGGTGATCATCAAAGGTAGTTGTCA. JAAAAAGTCATAGATT  
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AGAGCAGAGCCCAGAACTTGGGCTCTTGACTTCCCTTTGCAAATATATCATTGTGCTTTGAAATTATAGATATACGGA  
ATCATAGAACAGGAAGAACTGTATGATCATCCAGAGCTCATTGACAGCCCCCTCCCTCCCTCCACATATATGCTAATA  
AACCTCTGCTGTCTCTCTTCCACTTAAATTTGCGGGGAAATCTAGTTAGCATAAAAACTGATCCCTGTGGCTGGCT  
ATGCTTTGATTTTTTGACAGATTGCTCTGCTACTGCTGCTTCCGCTCTTCTTCATCATTACATTATGACAGACATTTGA  
GCAGAGTCTCAGTGAAAAC'TTGT'TTGGGGGTTGCTGCTTCTGATTCTCAGTGCAGCCTGCCAGCCTCATTGGGAAAAGG  
TGTTTAAATATAGGCAGCGATTTTCTGTATTATGAAGTGAATAGAAAATGCTGCGATGGGTTTCATTCAAGGGAGACCCA  
ATATCTTACTTACAATGAAGAAATCAGGCAATTTTGGGGAGTAGAAGTGGAAGTGTGACTCATAATATATTGGTATTT  
TCTTTTATGAGATTTTGATATGGCACTTAATGTTTATGCTGAGAGGAGATGAAGATTTCTCATTTTCTACAATTTCA  
CTGAGAAAATCATAACAGCAAGGACACAGAACTTCATGCAACTGCCTTCTTTTATTAGTACCTATATCTTGTCTTTCTTT  
CCTTTCTTCCCTTCTTGTCTCTCTTCCCTTTTGGTTTCTTTTAAAGCCTTTTCTTCTTCCCTTTATCCCTCCCTT  
ATAATTGATTTTTGCTTCTTGTGTACTACTTTCTTTCCATGGTTTCTTCAACCTGTAGTATGAAAGAGAGTGGATATG  
GTAGTGGTTAAGAGCATAGGCTCTAAAGTCAGACTGCTTGGCTTGAATCCTCTCTACCCTTACTGACTGAGTGACCT  
TGGATTGAGTCACTGAACCTCACTTTTCAATTTTTTATGCTTATTGGATAAGTTTCAATCAGAGTTGAGGATGAAGTG  
AGATATATGAAAGTGCTTAGTACAAAGCACATGTGTTGCTATCTTATAGTATGCAGTCACGACTTTCATATATATATTA  
CATTTATGGTTATTCCAATATATACATTTTGTGTAGAAGGCTTAGTCTTTCAATTACAATAAGCTATTGGTATAGTTTA  
GCCATCTAATGCTAATGGAAAGGAGAATGGGCTCAATTTGTTCTAAACAAATTTTATAACTTACTTATCTTGGGCTTTGA  
AGAAAGGTATGAGGAAATTAACCAAGAGATGTGTGCACACCTAAGAGACATTGACCCCACTTACTTTCTTTCTTTGCT  
CCTTGGCTTAAGACTCCTATGTAAGTGCCATGTTGCTAGAAAGTTGAAGCTTTTGAAGGTTTTAGTTTTGTGATTTTT  
ATATCTTTTTTTCAGATATTTAATTAATTTAATATATATATATATGCAATCTATAACACCATATAAATCATGATAAATCA  
AAAGATATATTGCTGCTGGTCCCTGGTCTCTCGGAGCTGCCAAGGCTCCTAGCTGCTGGGAAAGCTGATGTATATGCAACT  
TGGAACATAAGGCAGTGTTTATTGATGCCATTGATCTTTGTAATGGGCTACATGATTGAACCTTTTTTTTTATTCTTCT  
CCTTAGTCTTTGATAATGACTTCACATCTGTAGTTATCTCTTTATATTTGTTGAGTTGCTTTTTGCTGCTGCAGTATT  
CTAGACATTTTATAATTAGAGATAAAGCTTGAATTTCTATGCAACATGTTTGTATTTCAGCCTGCTTTCTTCTTCCC  
ACAGTTTTGGTCTGGTTTTGTTTTATTAGTTTTGTTTTCTGCAGGTAGAAATACCTAGGAAAGACAACATCATTTTGATAAA  
GTATAAAATATGCTTATTATTAGGAGAGAATACTTTAAAGGCTTATGAACCTTGTATGACTATCCTTTAGTTTATAATTA  
ACTTATTTTTTTTTTATATACTTTAAATTTCTGGGATACATGTGTAAGTGTGAGGTTTTGCTACATAGGTATAAATCA  
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CCCACCGACAGGCCCTGGTGTGTGATGTTCCCTCCCTGTGTCCATGTGTTCTCATTGTTCAAATCCCACTTATGAGTG  
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AAAGGACATGAACCTCATCCTTTTTATGGCTGCATAGTATCCATGGTATGTATGCCACATTTTCTTAATCCAGTCTATC  
GTTGATGGGCGTTTTGGGTTGGTTCCAAGTCTTTGCACTGTAAACAGTTCTGCAATAAACATACATGTGCATGTGTCTTT  
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TCCTTGAGGAATTGCCACACATCTTCCACAATGTTGAACATTTTACACTCCCAACAGTGTAAGGCAATCTCTT  
TTTCTCCACGCTCCTCTCCAGCATCTGTTGTTTCCAGACATTTTAAATATACCACTTCTAAGTGGCATGAGATGATCT  
CATTGTGGTTTTGATTGCAATTTGTCTAATGACCAGTGGAATGAGCTTTGTTTATATGTTTGTGGCCGCATAAAAGT  
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AAGTTCCTTGATAGATTCTAGATGTTAGACCTTTGTGAGATGGATAGATGGCAAAAATGTTCCCTATTCTGTAGTTTGGC  
TGTTCACTCTGATGATAGTTTCTTCACTGTGAAGAAGCTCTTTGATTAGATTCCATTTGTCAATTTTGCTTCTGTGG  
CCATTGCTTTTTGGTGTTTTAGTCATGAAGCTTTTGGCCAGGCCATGTCCATAATAGTATTGCTTAGGTTTTCTCTAG  
GGTTTTTATGGTTTTAGGTCTTATGTTTAAAGTCTTTTAAATCCATCTTGAGTTAATTTTTGTATAAGTTGAAGGAAGGG  
TCCAGTTTCAGTTTCTGCAATATGGTTAGCCAGTTTCCCAACACCAATTTATTAATAGGGAATCCTTTCCCACTTGTCT  
TGTTTTTGTGAGTTTGTCAAAGATCAGATGTTTTTATAGTGTGTGGCATTATTTCTGAGGTCTACATTCTGTTCCATTT  
GTCTATATATCTGTTTTGGTACCAGTACCATGCTGTTTTGGTTACTGTAGCCTTGCAATATAGTTTGAAGTCAGGTAGC  
ATGATGCCCTCAGCTTTGTTCTTTTGGCTTAGGATGTCTTGGCAATGTGGGCTCTTTTTTGGTTCTGTATGAAATTTA  
AAGTAGCTTTTTTCTAATCTGTGAAGAAAGTCAGTGGTAGCTTGATGGGGATAGCATTGAATCTATAAATTACTTTGG  
GTAGTATGGGCATTTTCATGATACTGATTCTTTTATCAGTGAGCATGGAATGTTTTTCCATTTGTTTTGTCTCTCT  
TATTTCTTGTGAGCAGTGGTTTTGTAGTTCTCCTTGAAGAGGTCCTTCACATCCTTTGTAAGTTGATTCTTAGGATTTT  
ATTCTCTTTGTAGCAATTGTAATGGGAGTTTGTCTCATGATTGTTGGCTCTCTGTTTGTCTATTACTGATGTATAGGAATG  
TTTGTGATTTTACACATTGATTTTGTATCTGTAGACTTTGCTGAAGTTGCTTATCAGCTTAAGGAGATTGGGCTGA  
GACAATGGGTTTTCTAAATATATGATCATGTCTGCAACAGAGACAATTTGACTTCTCTCTTCTATCTGAATA  
TCCTTTATTTCTGTTCTCTTGCCTGATTGCCCTGCGCCAGAACTTCCAATACTGTGTTGAATAGGAGTGGTGAGAGAGGAC  
ATCCTTGTCTGTGCTGTTTTTCAAAGAGAATGCGTCCAGCTTTTGGCCATTTGGTATGATATTGGCTGTGGGTTTTGTC  
ATAAATAGCTCTTACTATTTTGAATATGTTTCAATACCTAGTGTATTGAGAGTTTTTAGCATGAAGGGGTGTTGA  
ATTTTATCAAAGGCCTTTTCTGCATCTATTGAGATAATCATGAGGTTTTTGTGCTGTTTGTGTTATGTTGTTGTTA  
TGTTTTAATGATTGCAATGTTGAACAGCCTTGTATCCCAGGATGAAGCTGACCTGATCATGGTGCCTGAAGCTTTT  
GATGTGCTGCTGGATTCTGTTTGCAGTATTTTATTGAAGATTTTGCATAGATATTATCAGGGATATCGGCCTGAAA  
TTTTTCTGTTGTCTCTGCCAGGCTTTGGCTTCAAGATGATACTGGCTTCATAAATGAGTTAGGGAGGACTCCCTCT

Fig. 6.122



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TTTTCTATTGATTGGAGTAGTTTCAGAAAGGAATGGTACCAGCTCCTCTTTGTACCTCTGGTAGAATTAGTTGTGAATC  
TGTCTGGTCTGGGCCCTTTATGATTGGTAAGCTATTAATTACTGCCTCAATTGAGAACTTTGTATTGGTCTATTTAGG  
GATTCAATTTCTTCCTGATTAGTCTTGAAAGGGTGTATGTGTCCAGGAATTTATCCATTTCTCTAGATTTTCTAGTT  
TATTTGCATAGAGCTGTTTCATAGTATACTCTGATAGTAATTTGTATTTCTGCGGGATCAGTGGTGATATCCCTTTATC  
ATTTTATTATTGTGTCTATTTGATTCTTCTCTCTTTTCTCTTTATTAGTCTGGCTAGTGGTCTATCTATTTTGTAAATC  
TTTTTTAAAAAAAACAGCTCCTGGATTCAATTGATTTTTTGAAGGGTTTTTCATGTCTCTATCTCCTTCAATTCGCTC  
TGGTCTTAGTTGTTTCTGTCTTCTGTTAGCTTTTGAATTTGTTTGTCTTCTGCTTCTTTAGTTCTTTTAAATGTGACGT  
TAGGGTGTGATTTTAGATCATTCTGCTTCTCTCTGCGGCATTGGTCTATAAATTTCCCTGATAACAGTACTTTA  
GCTGTGTCTAGAGATTCTGGTACATTGTATCTTTGTTCTCACTGGTTTCAAAGAACTTATTTATTTCTACCTTAATTT  
CATTATTTACCCAGTAGTCATTACAGGAGCAGGTTATTAGTTTCCATGTAGTTGTGTGGTTTTGAGTGAGTTTCTTAAT  
CCTGAGTTCTAATTTGCTCTGTGGTCTGAGAGACTGTTTGTATGATTTCTGTTCTTTTGCATTTGCTGAGGAGTGT  
TACTTCCAATTATGTGGTCAATTTTAGAATCAGTGTGACAAGGTGCTAAGAAGAATGTATATTCTGTTGATTTTGGGTG  
GAGAGTCTCTAGATGCCTATTAAGTCTGCTTGGTCCAGAGCTGAGATCAAGTCTGAATATCCTTGTAAATTTCTGT  
CTCAGTGATGTGTCTAATATTGACAGTGGGGTGTAAAGTCTCCCAATATTATTGTGTGGGAGTCTAAAAGTCTCTTTG  
TAGTTCTCTACAAACTTGCTTTATGAATCTGATCTGATCTGATTTGGGTACAAATATATTAGGATAGTTAGCTTTCT  
TGTGTGCTTGTATCCCTTTACCATTTATGTAATGCCCTTCTTGTCTTTTTTTGATCTTTGTTGGTTTAAAGTCTGTTT  
TCAGAAGTTAGGATGGCAACCTCTGCTTTTTTATTGCTTTCCATTTGCTTGGTAAATATCTCTCCACCCCTTTGTTTT  
GAGCCTATGTGTGTTGTTGCACGTGAGATTGGTCTCCTGAATACAGCACAAATGGATCTTGCTCTTTATCCAATTT  
GCCAGTCTGTGTCTTTTAAATGGGGCATTATCCCATTTACATTTAAAGTTAATATTGTTATGTGTGAATTTGATCCTG  
TCATTATGATGCTAGCTGGTTATTTTGGCCATTAGTTGATGCAGTTTCTTCATAGTGTGTGATGGTCTTTACAGTTTGGT  
ATGTTTTTGCAGTGGCTGTTACTGGTTGTTCTTTCCAAATTTAGTGCTTTCTTCAGGAGCTTTGTAAGGCAGGCTG  
GTGGTGACAAAATCTCTCAGGATTGGGTGTGTCTGTAAAGGATTTTATTTCTCCTTACGTTTGAAGCTTAGTTTGGCTG  
GATATGAAATTTCTGGGTGAAATTTCTTTCTGGGGGAGGAGCCAAAGATGGCCGAATAGGAACAGCTCTGGTCTACAA  
CTCCAGTGAGAGCGTCACAGAAGACGGGTGATTTCTGCATTTCCATCTGAGGTACTGGGTTCTCTCACTAGGGAGTG  
CCAGACAGTGGGCGCAGGTGAGTGGGTGCATGCACCATGCGCGAGCCGAAGCAGGGTGAGGCAATTGCCTCACTCGGGAA  
GCACAAGGGGTGAGGGAGTTCCCTTTCTAGTCAAAGAAAGGGGTGACAGACAGCACCGGGGAAAATTGGGTCACTCCCA  
CCTGAATACTGCGCTTTTCTGACGGCCCTAAAAAACGGCACCAGGAGATTATATCTGACCTGGCTTGGAGGGTCTTA  
CGCCAACAGAGTCTCGCTGATTGCTAGCACAGCAGTCTGAGATCAAAGTCAAGGTGGCAGGAGGCTGGGGGAGGGGC  
GCCCACCATTTGCCAGGCTTGCTTACGTAAACAAGCAGCCAGGAAGTCAAAGTGGGTGGAGCCACCAAGCTCAAG  
GAGGCTGCTGCTGCTGTTAGGCTCCACCTCTGGGGGAGGGGCAAGACAGACAAACAAAAGACAGCAGTGACCTCTGCAGA  
CTTAAATGTCCCTGTCTGACAGCTTTGAAGAGAGCAGTGGTTCTCCAGCATGCAGCTGGAGGTCTGAGAACGGGCAGA  
CTGCCTCTCAGATGGGTCCCTGACCCCTGACCCCTGAGCAGCCTAAGTGGGAGGCACCTCCAGCAGGGGAGACTGA  
CACCTCACACGGCTGGGTACTCCAACAGACCTGCAGCTGAGGGTCTGTCTGTGTAAGGAAAACTAACAAACAGAAAG  
GACATCCACACCAAAACCCATCTGTACATCACCATCATCAAAGACCAATAGTAGATAAAACCAAAAATGGGGAAAA  
AACAGAGCAGAAAACTGGAACCTCTAAAAAGCAGAGTGCCTCTCCTCGTCCAAAGGAACGCAGTTCTCACCAGCAAC  
GGAACAGAGCTGGATGGAGAATGACTTTGATGAGCTGAGAGAAGAGGCTTCAGACAATCAAATACGCTGAGGTACTG  
GAGGCTATTCAAACCAAGGTAAGAGATTGAAACTTTGAAAAAATTTGAGAAGAATGTATAACTAGAAATAACCAATA  
CAGAGAAGTGCTTAAAGGAGCTGATGGAGCTGAAACCAAGGCTCGAGAATACATGAAGAATGCAGAAGCCTCAGGAG  
CTGATGCAATCAACTGGAAGAAAAGGTATCAGCGATGGAAGATGAATGAATGAATGAAGTGAAGGGAAGTTTAGA  
GAAAAAGAATAAAAAAGAAAGGGCAACCCCTCCAAGAAATATGGGACTATGTGAAAAGACCAATCTATGTCTGATTG  
GTGTACCTGAAAGTGACGGGGAGAATGGGACCAAGTTGGAACACACTCTGCAGGATATTATCCAGGAGAACTTTCCCAA  
TGTAGCAAGGCAGGCCAAAATTAGATTGAGGAAATACAGAGAATGCCAAAAGATACTCTCGAGAAGAGCAACTCCA  
AGACACATAATTGTCAGATTACCAAAGTTGAAATGAAGGAAAAAATGTTAAGGGCAGCCAGAGAGAAAGGTCGGGT  
CCCTCAAAGGGAAGCCATCAGACTAACAGCGGATCTCTCAGCAGAACTCTACAAGCCAGAAGAGAGTGGGGGCCAAT  
ATTCAACATTCTTAAAGAAAAGAATTTTCAACCCAGAATTTTATATCCAGCCAAACTAAGCTTCATAAGTGAAGGAGAA  
ATAAAATCCTTTACAGACAAGCAAATGCTGAGAGATTTTGTACCACCAGGCATGCCCTAAAAGAGCTCTGAGGAAG  
CACTAAACATGGAGAGGAACAAATGGTACCAGCCACTGCAAAATCATGCCAAATGTAAAGACCATCGAGACTAGGAAG  
AAACTGCATCGATTACAGCAAAATAGCCAGCTAACATCGTAATGACAGGACCAAAATTCACACATAACAAATATTAAT  
TTAAATGTAAATGGACTAAATGCTCCAATTTAAAGACACAGACTGGCAAATTTGGATACAGAGTCAAGACCCATCAGTGT  
GCTGTAATCAGGAAAACCATCTCAGCTGCAGAGACACATAGGCTCAAATAAAAGGATGGAGGAAGATCTACCAAGC  
AAATGGAAGAAAACAAAAGGAGGGGTTGCAATCTTAGTCTCTGTATAAACAGACTTTAAACCAACAAAGATCAAAAGA  
GACAAAGAAGGCCATTACATAATGGTAAAGGGATCAATTCACAAGAAGAGCTAACTATCTTAATATATATGCACCCA  
ATACAGGAGCACCCAGATGCATAAAGCAAGTCTGAGAGACCTACAAAGAGACTTAGACTCCACACATTAATAATGGG  
AGACTTTAAACACCCCACTGTCAACATTAGACAGAGCAACGAGACACAAAGTCAACAAGGATACCCTGGAATTTGAATCA  
GCTCTGCACCAAGCAGACCTAATAGACATCTACAGAACTCTCCACCCCAATCAACAGAATATACATTTTTCAGCAC  
CACACCACCTATTCCAAAATTGACCACATACTTGAAGTAAGGCTCTCTCAGCAATGTAAAACAGAAATATAAC  
AACTATCTCTCAGACCACAGTGCAATCAAATGAGTAAAGATCTCATTCAAACCGTCAACTCACTAGG  
AAACTGAACTCAACCTGCTCTGAATGACTACTGGGTACATAACGAAATGAAGGCAGAAATAAGATGTTCTTTGAACCA  
ATGAGAACAAAGACACAGCATAACAGAACTCTGAGGACGCATTCAAAGCAGTGTGTAGAGGGAATTTATAGCACTAA  
TGCCCAACAGAGAAAGCAGGAAAGATCTAAATGGACACCCCTAACATCACAATTAAGAAGACTAGAAAAGCAAGAGCAA

Fig. 6.125

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ACACATTCAAAGCTAGCAGAAGGCAAGAAATAACTAAAATCAGAGCAGAACTGAAGGAAATAGTGACACAAAAACCC  
TTCAAAAAATTAATGAATCCAGGAGCTGGTTTTTTGAAAGGATCAACAAAATTGATAAACCGCTAGCAAGACTAATAAA  
GAAAAAAGAGAGAAGAATCAATAGACGCAATAAAAAATGATAAAGGGGATATCACCACCAATCCGACAGAAATACAA  
ACTACCATCAGAGAATACTACAAACACCTCTACGCAATAAACTAGAAAACTAGAAAGAAATGGATAAATTCCTGGACA  
CACACTCTCCCAAGACTAAACCAGGAAGAAGTTGAATCTCTGAATAGACCAATAACAGGCTCTGAAATTGAGGCAAT  
AATTAATAGCTTACCAACCAAAAAGAGTCCAGGACAGATGGATTACAGCCGAATTTACCAGAGGTACAAGGAGGAG  
CTGGTACCATTCTTTCTGAACTATTCCAATCAATAGAAAAAGAGGAATCCTCTAATCTGATTGATGAGGCCAGCA  
TCATCCTGATACCAAGCCAGGCAGAGACACAACCAAAAAGAGAATTTTAGACCAATATCCTTGATGAACATTGATGC  
AAAAATCCTCAATAAAATACCTGGCAAACCAATCCAGCAGCACATCAAAAAGCTTATCCACCATGATCAAGTGGGCCTC  
ATCCCTGGGATGCAAGGCTGGTTCAATATACGCAATCAATAATGTAATCCAGCATATAAACAGAACCAAGACAAAA  
ACCACATGATTATCTCAATAGATGCAGAAAAGGCTTTGACAAAATTCACAATGCTTCATGCTAAAACTCTCAATAA  
ATTAGGTATTGATGGGATGTATTTCAAAATAATAAGAGCTATCTATGACAAACCCACAGCCAATATCATACTGAATGGG  
CAAAAATCGGAAGCATTCCCTTTGAAAACCTGGCACAAGACAGGGATGCCTTCTCTACCCCTCTATTCAACATAGTGT  
TGGAAGTTCTGACCAGAGCAATTAGGCAGGAGAAGGAAATAAAGGGTATTCAATTAGGAAAAGAGGAAGTCAAAATTGTC  
CCTGTTTGACAGACGATGATTGTATATCTAGAAAACCCCAATGTCTCAGCCCAAAATCTCCTTAAGCTGATAAGCAAC  
TTCAGCAAAATCTCAGGATACAAAATCAATGTACAAAATCAACAAGCGTTCTTATACACCAACAACAGACAAAACAGAGA  
GCCAAATCATGAGTGAACCTACCATTACAATTGCTTCAAAGAGAATAAAATACCTAGGAATCCAATTAACAAGGGATG  
TGAAGGACCTCTTCAAGGAGAACTACAAACCACTGCTCAAGGAAATAAAAGAGGATACAAAATAATGGAAGAATATTCC  
ATGCTCATGGGTAGGAAGAATCAATATCGTGAAAATGGCCATACTGCCCAAGGTAATTTAAAGATTCAAGTCCATCCCC  
ATCAAGCTACCAATGACTTTCTTACAGAATTGGAAAAAACTACTTTAAAGCTCATATGGAACCATATAAAGAGCCCG  
CATCACCAAGTCAATCCTAAGCCAAAAGAACAAAGCTGGAGCATCACACTACTTGACTTCAAACTATACTCAAGGCT  
ACAGTAATGAAAACAGCATGGTACTGGTACCAAAACAGACATATAGATCAATGGAACAGAACAGAGCCCTCAGAAATAA  
TGCTGCATATCTACAATATCTGATCTTTGTCAAACCTGAGAAAAACAAGCAATGGGGAGAGGATTCCCTATTTAATAA  
ATGGTGTGGGAAAACCTGGCTAGCCATATGTAGAAAGCTGAACTGGATCCCTTCCTTACACCTTATACAAAATCAAT  
TCAAGATGGATTAAAGACTTAAATGTTAGACCTAAAACCATAAAAACCTAGGAGAAAACCTAGGCATTACCATTCAAG  
ACATAGGCATGGGCAAGGACTTCATGTCTAAAACACCAAAAGCCATGGCAACCAAGCCAAAATTGACAAATAGGATCT  
AATTAACCTAAAGAGCTTCTGCACAGCAAAAAGAACTACCATCAGAGTGAACAGGCAACCTACAAAATGGGAGAAAAT  
TTCACAACCTACTCATCTGACAAAGGGCTAATATCCAGAACTCAAAATGAACCTCAAAACAAATTACAAGAAAAAACAA  
ACAACCCCATCAAAAAGTGGGTGGACATGAACAGACACTTCTCAAAAGATGACATTTATGCAAGCAAAAACACAGAA  
AAAATGCTCACCATCACTGGCCATCAGAGAAATGCAAAATCAAAACCAACATGAGATACCATCTCACACCAGTTAGAATG  
GTGATCATTAAGAAAGTCAAGGAACAACAGGTGCTGGAGAGGATGTGGATAAATAGGAACACTTTCACACTGTTGGTGGG  
ACTGTAACTAGTTCAACCATTGTGGAAGTCAGTGTGGCATTCTCAGGGATCTAGAACTAGAAATACCATTGTAGCCC  
AGCCATGCCATTACTGGGTATATACCCAAAGGACTATAATCATGTCTGTATAAAGACACATGCACACGTATGTTTATT  
GTGGCATTTATTACAATAGCAAGACTTGAACCAACCCCAATGTCCATCAATGATAGACTGGATTAAGAAAATGTGGC  
ACATATACACCATGCAATACTATGCGGCCATAAAACATGATGAGTTTCATGTCTTTGTAGGGACATGGATGAATTTGA  
AATCATCATTTCTCAGTAACTATCGCAAGAACAAAAACCAAAACCCGCATATTCTCACTCATAGGTGGGAATTTGAACA  
ATGAGAACACATGGACACAGGAAGGGGAATATCACACTCTGGGGACTATTGTGGGGTGGGGGTAGGGGGGAGGGATAGC  
AATGGGAGATATAGCTAATGCTAGATGACGAGTTAGTGGGTGCAGCACACCAGCATGGCAGATGTATACATATGTAAT  
AACCTGCGCATTTGTGCACATGTACCCTAAAACCTTAAAGTATAATATAAAAAAAGGAAAACTAGAGTATAAATGAAG  
TGTCAAAGATGTTAAGAAACAGGATCTTTTAAAAAATGTTTTTAATTTATTATGGGTACATAATAAGTGTATATATCTA  
TGGGATCATGTGAAATTTTGATACATACAATATATAAATCTTATTGGGGCAATTGGGGTGTCCATCACCTCAGGCA  
TTTATCATGTCTTGTATTAGAAACAGTCCAATTTCTCTTTTGTAGCTATTGAAAATATACAATAAATTATTGTTGAGT  
ATAAAAAAAGTCCACACCTAGTCATATTATGTTCAATCAGAAAACTAAAGACAACCAAGAAACATGAAGAAGC  
TACAGAAGAGAAGAAATTTACCTAAGGAGGACAAGGATAAGAATTACATCAGAAATCTCATTGGCAACCATGCAAGAA  
AGAAGAAGGTAGCGTGAAATATTTAAAGTGTTTAAAGGATAAACTAGAAATCTGGATACAGTGAACCTATCCTTCAAA  
AGCAAGAAGAAATGCTTTCTCAGACAAAGGCTGAATCTGTCAACAGTAGACCTGCCTTGAAATAAATGTTGAAAGAAA  
TTTTTCGGTCAGAAATGAAATGACATAGGTCAAAAACCTGAAATCTACGTAAAGAAAAGAGAGCTTTCAAGAGGAACA  
AATGAGCATAAAAATAAATCTTTAATATTCTTAACCTTAAAAAAGAAAATTCCTTCTTTAAGAGTGGCCCC  
CCTCTCTTTTCTGTCTTGTAGGGTTCTGTCAGAGAGATCCACTGTTAGTCTGATGTGCTTCCCTTTGTGAGTAACTGA  
GCTTTCTCTCTGGCTGTCTTAAACATTTTTCTCTCCATTTCGACCTTGGTGAATCTGATGATTGTCTTGGGGTTG  
CTCTCTCGAGGAGTATCTTTGTGGTGTCTCTGTATTTCCTGAATTTGAATGTTGGCCTGTCTGTCTGGGTGGGGAT  
ATTCTACTGGATAATATCCTGAAGGGTGTTCCTCAACTTGGTTCCATTCTCCCATCACTTTGAGGTACACCAATCAAAC  
GTAAGTTTGTTTTTTTCACATAGTCCCATATTTCTTGGAGGCTTTGTTCAATCCCTTTCACTTTTTTCTCTAATCTT  
GTCCTCACCTTTCTTTTCAATTAATGATCTTCAATCTCTGATATCCTTTCTTCTGCTTGATCAATTTGGCTATTGATA  
CTTGTGATGCTTCAGGAAGTTCTGTGCTGGGTTTTTCAGTCCCATCAGGTCGTTTTATATTCTTCTCTAACTGATTA  
TTCTAGTTAGCAATTCCTCTCACCTTTTTCAGTGTCTTCTAGCTTCTCTGATGTTGGTTAGAACATGCTTCTTAGCTC  
GGAGCCATTTGTTGTTACCCACATTTTGAAGTCTACTTCTGTCAATTTGTCAAATTCATTCATCCAGTTTGTTC  
CTTGCTGGTGGAGAGTTGTGATCCTTTGGAGAAGAGGCATTCTGATTTTTGTAAATTTAAGACTTTTGTCACTGGTTCC  
TCCCCATCTTCAATGGAATTTATCTACCTTTGGTCTTTGATGTTGGTGACCCTTGGATGGGGTTCTGACTGGACATCCTT  
TTTGTGACGTTGATGCTACTCCTTTCTGTTTGTAGTTTTCTTCTTAACAGTCAGGCCTCTCTGCTGCAGGTCTGCTG

Fig. 6 (12)



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GAGTTTGCTGGATGTCCACTCCAGACCCCTCTTTGCGCTGGGTATCACCAGCAGAGGCTGTAGAACAGCAAAGATTGCTGC  
CTGTTCTTTCTCTGGAAGGTTTTTCCAGAGGGGCCACCACAGATGCCAGCTGGATCTCTCTGTATGAGGTGTCTG  
TCGACCCCTGCTGGGAAGTATCTCCAGTCAGGAGGCACGGGGGTGAGGGACCCATTTGAGGAAGCATTGTGTCCCTTA  
GCAGAGCTCAAGCACTGCGCTGGGAGATCCACTGCTCTCTTCAGAGCCAGCAGGCAGGAATGTTGTCTGCTGAAGCAG  
CGCTACAGGCACCTCTTCCCCCAGGTGCTCTGTCCCAGGGAGATGGGAATTTATCTATAAGCCCTGACTGGGGCTG  
CTGCCCTTTCTTTCAGAAGTGCCCTGCCAGAGAGGAGGAATCTAGGAAGGCAGTCTGGCTACAGTGGCTTTGTGGAGCT  
GAGCCCACTTTGAACTTCTGCTGGTGGCTTTGTTTACACTGTGAGGAGAAAACCGCCTACTGAAGCCTCAGTAATAGCAGA  
CACCCCTCCCCTCACAAGCTCAAGTGTCCCAGGTCCACTTCAGACTGCTGTGCTGGCAACAAGAAATTTAAACTAGTG  
GATCTTAGCTTGTGCTGGGCTCCACAGGGGTGGGATCCGCTGAGCTAGACCCTTGGCTCCTTGGTTTCAGCCCCCTTTCC  
ACAGTTGTGAATGGTTCTGTCTCACTGGCCTTCCAGGTGCCACTGTGGTATGAAAAAATAAATCCTGCAGCTAGC  
TCGGTGTCTGCCAAACAGCCACCAGTTGTGTGCTTAAACCCAGGATCCTGGTGGTGTAGGAACCCAGGGAATCTC  
CTGGTCTGCAGGTTGCAAAGACTGTGGGAAATGTGTAGTATCTGGGCCGGAATGCACCATTCTCACAGCACAGTCCCT  
CATGGCTTCCCTTGGCTAGAGGAGGGAGTTCCCCAACCCCTTGAACTTCCAGGTGAGTTGATGCCAACCCCTGCTTCA  
GCTCACACGCCGTGGTCTGTACCCACTGTCTAACCACTGCCAATGAGATGAGCTGGGTATCTCCGTTAGAAATGCAGAA  
ATCACCTGCCTTCTGCATTGGTCTCGCTGGGAGCTGCAGCCGAGCTGTTCTTATTGCGCATCTTGGCAGCCAGCCA  
CTGTAATTCACCTTATTTTCAAATGTTACCATTAGAAGCTGTATACCATATTACAAGTTTCAAACACTATCAGCCCCCTTTCC  
ACAAAAGAGTTCCTAGTTGCCTTAAAGAATTAGCTATTGTTTTCATCTGTGTGGCTTCGCTCTCAGAGGGTGATTGAAA  
CATGACAAGAAGTGATTTTTTTTTCTCAAGAGAAATGGAGGCTTTGGACATTAGTGTCTAGCAATGTCTATGTAGAACA  
TACATAGAGAAATCTATGAAGAAATCAGCCAAGCCGTGACTATCGACCAAAATTTTCAACTTTCACCAATGAGATGAAT  
ATACTATCTATATCTAATAATCCAAAGCTTCATTTATGAACATATTGCTTCTCAAAATAAATAATTTGGAGCAGTTTG  
TGATTTAATGATGGAAATTTTTTTATAAGAACTATAATGGCAGTTAAATTTATAAACTGAAGTTACTAATATGAATCAGT  
GAGCCTTTCATGAGCTTTTATTTTAAACAGCTAAATACTAAATACTTTTATTTTAAATCAGCTAAAGCATTCAACTTA  
TAGTGAGGAGAGTTTTGTTTTTCAACACAGTTACGAAAGAATTTCGGGCTCACTTAATTGTAAATAAATAATCTTAAAGAAG  
AAACCATTGTTTTAAATGTTACCTCATTTAGTTTTTTCAGTAAATGGAACAAGAATTAACATTTAGGGTAATAATAGTTT  
ATGTCTGTTTTTAATTATCGGACAGAATACTTAGGGAATGGACAGAGGCAGTAAAGAAAAATAGTTTCATTATATTATAA  
TGTATCATTAGTTTTGAATGTGCATACACCTAATATTAAGTGTATGTATAGTACACAATTTGGTCATTTTTATTTTAAAA  
TATTACCTCATATCAATAATCCTAATTTAAATGGTTAAGAATGGAATAATTTCCATGAAGTATGCATTTCTGAGTA  
ATGGTTGTATATAACCAAAATGAAAGCTAATTAATTCATTTGGTGAAAGTTATAGTGAGATAAAGCACAGACTGTAGAC  
ATATAACAATTAATTAGGACAATGTTATTCTACATCTACAGGCTGGAATTTCCACCCAACTGGAGGCTCATCAGCATT  
TACCTTTTTATTCAAAGGGGAAATTTGGTGAGAGAGTAGAGGCAGATAATCAGAGCATCCCACTCTACTAGAAAAGCAAGC  
CACAGCTCCCATCCTGCTGGTGATGTGCAGCACTGGTCTTTCTACACAGCAGCACACTAGTACCAAAAAAGAGGCTTT  
GCTTTTTCTGTGTGATGAGCTGTAAACCTTCATATTAGAAAACTCAGAAAAGAATTTTGCTTAGACGCTAATCAAATA  
CAAAAATTTGTGGCTGATGGAACTACACATAGATAAATTAGTCCAATATCTTCTACTTGTGAAATTTAAATAACTTCA  
TCTTAAGAAATAAAGGTAATTTGGGAAAAATTGAAAAGGAAGTGTTTTCCAGTTTTGATAGAGTGAATGGGGCATTCAAAT  
ATATTTCTAAATGAATGATAAAAAATAAATACTTGCAATATTATCAGAATTTATTTCCACAATAAATATGTTTCAGGAAT  
GTTAAGTGGGAAGCCTGGGCAGCCATTGTGCTGTACTGGCTCTGTTTATTTTTTGTCTCTCAAAGAGAAAGAAAGG  
AACCTTAGCACAAATAGCAGAAATTTCTGTATGGTGGCTATTACAATTTTACCAGTGGGAAAGGACATCTATGGGCTTT  
GAAAAGCTAGGAAACATCTTGAATATCAGAAATTTGAATGAATACTACTTGGTGTAGATTAACTAAAGACATGGGAT  
TATATGGTCTCAAAGCCACAGATGTAGTTGGGTCTAAGAACCTTGTCTATATATCTATATTTTTTATTTTTTTTATT  
TTTTTTCTTTTATTATTATTATAGTTTAAAGTTTATAGGGTACATGTGCACAATGTGCAGGTAGTTACATGTGTATACAT  
GTGCCATGCTGGTGTGCTGCACCCATTAACTTGTCTATTAGCATTAGGTATATCTCTAAAGCTATCCCTCCCCCTCC  
CACCACCCACAAACAGTCCCAGTGTGTGATGTTCCCTTCTGTGTCCATGTCTCATCTATTGTTCAATCCCACCTAT  
GAGTGAGAATATGTGGTGTGTTGTTTTTGTCTTCTGTGATAGTTTACTGAGAATGATGATTTCCAAATTCATCCATGTC  
CCTACAAAGGACATGAACCTCATTTTTTATGGCTGCATAGTATTGCATGGTGTATATGTGCCACATTTCTTAATCCAG  
TCTATCATTCTTGGACATTTGGGTGGTTCCAAGTCTTTGCTATTGTGAATAGTGCCACAATAAATACATACATGTGCAT  
GTGTCTTTATAGCAGCATGATTATAGTCCCTTTGGGTATATACCCAGTAATGGCATGGCTGGGTCAAATGGTATTTCT  
AGTTCTAGATCCCTGAGGAATCGCCACACTGACTTCCACAATGGTTGAACTAGTTTACAGTCCCAACAGTGTAAAA  
GTGTTCTTATTTCTCCACATCTCTCCAGCACCTGTGTTTCTCTGACTTTTTAATGATCACCATTCTAACTGGTGTGAG  
ATGGTATCTCATTTGTGGTTTTGATTTGCATTTCTCTGATGGCCAGTGATGGTGAGCATTTTTTCATGTGTTTTTGGCT  
GCATAAATGTCTTCTTTTGAGAAGTGTCTGTTTCATGCTCTTCACTCACTTTTTTGATGGGGTTGTTGTTTTTTCTGT  
AAATTTGTTTTAAGTTTCATTGTAGATTCTGGATATTAGCCCTTTGTGATGAGTAGTTGCGACAATTTCTCCCATT  
TGTTAGTTGGCTGTTCACTCTGATGGTAGTTTCTTTGCTGTGTATATGGAATAAAGAGCCCTGCATAAGCCAAAA  
GAACAAAGCTGGAGGCATCACACTACCTGACTTCAAATATACTACAAGGCTACAGTAACCAAAACAGCATGGTACTGG  
TACCAAAACAGAGATATAGATCAATGGAACAGAACAGAGCCCTCAGAAATAACGCCGCATATCTACAACATCTGATCT  
TTGACGAACCTGAGAAAAAGGAATGGGGAAAGGATTCCTTATTTAATAAATGGTGTGGGAAAACTGGCTAGCCAT  
ATGTAGAAAGCTGAACTGGATCCCTTCTTACACCTTATACAAAAATCAATTCAGATGGATTACAGACTTAAACATT  
AGACCTAAAACCGTAAAAACCTTAGAAGAAACCTAGACATTACCATTCAGGACATAGGCATGGCAAGGACTTCATGT  
CTAAAACACCAAAAGCAATGGCAACCAAGCCAAAATTGACAAATAGGATCTAATTAACTAAAGAGCTTCTGCACAGC  
AAAAGAACTACCATCAGAGTGAACAGGCAACCTACAAAATGGGAGAAAAATTTTCGCGACCTACTCATCTATTTTTT  
AATGGATTTAACAGCAAGAAAGACCATGGAGCCACTAAATTTTTCCAAATCTGCAAAATGAAGGTGATATAAATAT

Fig. 6. 125

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GTCACCTTAGACAATATTTTCATTTTTGATATAAAATTTTATTTTTTATCAGTTTGATAATATGCATAGGACTAAAAAATG  
CAGTTGTCTTAAAAATATTTTAGGGTTGCTTAGGATTCACCTTTAAAAATAAAAAAGTGTGAGAAATAAAAGTTGTCTGCTT  
ATGTTCCATATTTTCAGAACTACCTTTGATTTCTTTAGCTAAACAATATGTCACATAAAATAGGTTAGGAATATAGACTT  
TCAGATGTGCTACCTGTCTCCCTTCAAAACACTCATTAGGTAATGTATTAATTATTTTGAATACACCTGTCTTCTCT  
GCTTCAGCAAAACCCACCAGGGCAGAGATCACTCTCCCTCTGTTTGTCTTTGAATTTTATGACTTAGCACAGTGAT  
TGGCACATAAACATTATTTAAACCAATGAATGAGGAAAGCAACGAATAAGTAAACAAATGGGCCAGACTAAAAAGTAA  
GTTATATGTATTAGTGAGAGTCAATAATAAATTAATGAAATAATCTTTTATTTGAAACTGAAGCAAATTAAGGGAAAT  
TATGAACCTTAAATCTTTTTGTAAAGATCTAGTACCAATAAGATAAAAAAATGCTCATCTTTTTTCCATTGAAATGT  
TATGTTCAAATGAGCTTTGTTTCTATACCTTTATACATCAATTAAGCTGAATTCATAGGTGCTAAGCATTTTAAACATATT  
GTATTGCATGTAATATTTCCCTAATGCCCCAACTTCAAGATTATATAATGGCTTACTCTCTCCCTGTCCCTACCCACCA  
GATAGTGTATCCACATACATTCTCATCTAGTTTTGTTCTGTGTGAGAAAAACCATATGCGGTATCCTATTCCTATGTGAA  
TTAACCTGGCAGTGCAGGTAAGTGAAGTGCATGTGATCTGGTCTCTGCTGACATATCACAATGGGCCCCCTCCTTGCAT  
GGAGGTAGCGTTTTTTATAAGACAAAATGTTTTAAATAGAACACATTTTCAAGATTTTATATGTATTTTGTGT  
TTTTCTCCCTCTACCCCTTTCCAAAATTTATGAAATCTAGGACCATTTATAGACAAAGCACAGTTTAGTCCGAG  
TAAACCAATGGACCCTGAAGTGTCCAAGTCAGAGTTTATTTGCGAATTTAATTCATTTCCACAGAGATAGGCAACCCA  
GGCCTGTGAGGACACGAGGGTAAGTAGGCAACAAAGTGCCGTAGTCAGGCTTGTGTTTGTCTTTTTGGTAAGAGGACAAC  
ATTGACTTCAGTGTGAGGGCATAAAGGAGACTCAGGACTTATTAATTTTTTCCCATATAATTCTGTGAACCTTTGTGAAT  
TCCCTAATATTCTTTTAAACAAGAGTTCGGAGACATGAGTTTATGTGCTTCTTGGATATATTACGGGAGTTTGCAGAG  
AAAGTTGAATAAATTATTAGGTTAATGGCCTGTGTAAATTCACCAACACCTTTTCACTATCTCATCAATCATCTGTGTT  
GAGTTATGTGATTCAGTCTGCTGATGAGCTCACACCTTTTTCTGATACAGGAATATTGTACACCAGGGGACTGG  
ATTTTAAACAAAACGTATTCCTTAGAATAACTTGAACAATGGATTTGGTGGGTCCTTACACTATTATGTGCTGTGTAGCT  
GTACAAGTGTGTCTGCATGAGCTTTAGGACATTATTTGAGATATTTAAGCTATGTGTACCTCATGTAAGCTGTGTA  
TTTTCTTAGTTCTTTTTAAATATTTTCTCAGAAAACCAACAGTAAATCTATCAGGTTTACATGAATACACTCATTG  
TGTCATATCAACCCAAAATGAATATGATCTTCCAGGTAATGATGAAGGATGATAACTATAATTTCCAGCCAACTTT  
ATTTTGAAACATCACTCAGTGTTCACATGTTTAGTGGCTGTAAATCTATATGTCTAAGCAAAGTGTGAAGAGCATA  
ATTAACCTTATTTGGTTGTTGTGTATCTTTTAAATCACAGTTTGAATCTGCTGGGAATGTTATAGTGGCACTAGTAGCA  
AAGGAATGGCAAGGATGTTAAGACTTTCTCATGCTAAGACCCAGCTTGGTATTGAGTTTTTAGGAGGGGGCCGCATGA  
CATCTCTAATTGCTTTGGCAATCCAATTATTGAGACAAGTAAGTGAAGCCCATCGGGTGCCTCCCAAGGAATTAACCTGG  
TCATTGTATATAATGTTGCACTCTCCCTATTGGGAGGAGGGGTGGCCACCCTCACCTCTGCCATTGAAGATTAAACCA  
CTACAAATTTTCAAAAATATAATATCTAATTTATTACACAGACTATCATATGGGTTTCTAATCCTTAAGTATCTCTAA  
ATTTTATTATTATTTTAGATTTTTTAAATAAGACTCCACCTAAGTGAAGGAAAGGGGCTAGAAAGCATAACAGA  
GTTTGGCTCTTGGTTCTCAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT  
AATCTGTAAGACAGAGACAAAATGCCCTTCTCAGAGGGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT  
TGGCAGAGGACCTACCTTGATGTGCTATTCTCAACATTGATATTTAATCAGTATACACAAGTATGCCCTTTTTTTTTT  
TTTGAGACGGAGTCTCGCTCTGTTGGCCAGGCTGGTGTGAGTGGCGCCATTCAACTGAGTGGCCCTCCGCTCTCTG  
GGTTCAAGCAATTTCTCTGCTCAGCCTCCCGAGTAGCTGGGACTACAGGCATACGTCACCATGCCGCTAATTTTTT  
TATTTTTAATAGAGACTGGGTTTCGCCATGTTGGCCAGGCTGGTCTCGAACTCCTGACTTCAGGTGATCCTCCCGCTC  
AGCCTCCCAAAGTCTGGGATTACAGGTGTGAGCCACCGCACCCTGCTGCATGCACATTTGCTGGATGATCTTCCAG  
GCTACCATGTGGATCTCTCTCATACAGCAGAGGGAGAGTTGTACAGCAATGAGGGCTTCAGAAGTGTGTCTGACCCATG  
CTGATTGCTCAGTGCCCTGAGCACAAGTTTTTAAACATTTGAATCTCACCCATAATATTTCTCATCTTCAGAGACA  
GAGAGCTTGGCTATATAATGAGGTAAAGTAACTAGTGAACGAATAACATGCGGAAATGATAAATATCATAAGTT  
GTATTACTGCCTGTGGTAGTCTGAATAATGGTCTCCTCAAAAGATATTCAGTCTTAATTTCCATAACCTGTGAATATGTA  
ACCTTATATGTCAAAAGGAACCTTGCAGATGTGGTTAATTTAAGGATCTTGAGATGGGGGATTTTCCCTTGATGATCCA  
GGCAGGCCCTAAATGTAATTATAAAGGGGCTTTTAAAGAGAGAGGCAGGAAGGTCAAAGGCAGAAGAAGGCAATGTGAC  
AGCAGAAGTAGAAATGGTGTGAAGCCGAAGCCAAGGCATGCAATGCTGAAAGCCTCTAGAAGCTGGAAGAAGAAAGG  
GATGAATCCCCCATTTGGCATCTCCAGAAGCAATTAATCCCACTGACATCCTGATTTTAGCTTAGCTCTGTAAGACTAAT  
TCAGGACTTCTGACTTATTTGTGGTGTTTTTAAACACTCAGTTTGTGTTAATTTGTGTAAGGGCAATGGGAAATGAAT  
GCACCTTCCCATCCATAACCCCTGTCTCTAGCTATGTTGAAGTCTTTACCATCCCCAAATCTGACTTTTACTTGCATGCT  
TCTTGCTTTACATATCTGCTTTTCTTCTGCTTCTTCTGCTTCTTCTGCTTCTTCTGCTTCTTCTGCTTCTTCTGCT  
CAGCAAATCCTGCTTATCCTCTGAGAGGGAGGACAAGATCATCTCAGATATAGTTTGTAGCTTCTCACAACCTTCTTACT  
AGACTGCTTTGAAATCTTGTGGTCTTTATCCATAGCTCATGTAAATAACTCTGAGCTAGCAGTGTATATTATTTTTAT  
TTCATCCTGGAACTATGTCTTAGCAATATTTTTATTGGAGAAAACTGAGAGCAAACCTCTGTTTCCCATATGCCTA  
TTGCCAAATTTCTCTGGGTGCTTTACTTTCACTGCACTGATTCTAGAAATTTGATTGACAACCTGTGTCTAAGATGACC  
CTTTGATTATCCAGATGGTGTGAAAAATGTTCTTCAAAAACCCCACTGCTTTTCAACATCCTAATGGGTAGAAT  
CTCTAAATCCTTAGGGTGTCAACAAAAGCAAGGCATATTTACACTTCAGTTGGGTGAAATTAATTAGCATGGAAGTT  
AATATTTACAATTAATGGAGATTACCTGACTTTAATAGTGAGATTGTGTAGCTACTTTTGTATCACTACTCTTTTTT  
TTGTTGTTTTAGAAATTTGTGGCAAAAAATGGATAAAATAAAATTCACCCTTTTAAACATTTTTTGAATTTCTGGAGT  
TAAAGTGGTAGGATAACCAAAACATCTCTTTCTGTTGAACCATCAACAATTGTCTTTGAAAAGAGGTTTGAATAT  
CTTTTCTTTGAAATCCTCGTGCAAACTTCACACCATGATCATTATGAGGTAGTTATCAGACACTGGAGATGAATTA  
CTGGGGATTTTTGTGTTCTGGTTCTCAGTATACAACCAAGGTAGAATATTGACATTGAAAATAAATGTCACCTCGTTT

Fig. 6.126

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TCAAGGAAAAATTTGTAGTTTACCGAACACAGCACAAATGAAAGCTGAGATACTTTACCAGTGATATTGTAGGTCTCAG  
TGAGTAAAAACTCAATTAAAAGTATATTGGGGTGGCGGGGCACTGTGTATAGATAGACCTGGACATGATCTCTAATCA  
CAAATGCTACTTTTGAAGGGCCAGATTCTTGATACAGAGACATTTTATTTGGTGGCAATAACCATGGCTTGTCCACAG  
AATGATGCCGTATTATTCTCCTGACCTAACTTCAAAGAAATAAAGAGTTTGCAAGAAGAACTGCAGTTCTTCAAAGTAC  
GCAATATGGATTTCCAAGATGAATGTAGTTTCTCTCTCTGAGGAATTCTGAACAGTGGTAAAGTTTCAAGTTTATGC  
ATATCTTTTGCTCTACATCTTCCCTAAAAGAACTTGTGGCAACAAACAAAGGGAAAGAAATAACATTTTTTAATAACT  
ATGTGAAAGCTCTATAGTAAGTGCTTCACATGTTACCTCATTTAATTCTTACAACCTACCTTATCTAGTAAATTATCTC  
CCATTTGACACTTTAAGGAAGCAGCTAAGAGATGTTTCATAACTTTCTAGAAAAGGTAGGATTTGAATGCAGGTTTGT  
ATTATTCAAAGCTCACAATGTGCTTTACGCAACATCAAAGTAACATATTGCGGAATGAGTACCTTTCCCATTTAAAA  
CAAATGAGTCTTGAAACTCTTACCCTGTTTGTATGTAAGTGGCTCAGAAAATAGAAAGTTTGAGATCATCAAAGAG  
AGAAGTTAACAAGAGCATTTGTAATCCAGAAATAAGAACGCAATAGAGAAGTAGAAGTTGTGTGGCTAATTTTACCAA  
CTAAATAGCCTGAATTATTCAGTGTGACTATACACATTGATCAAATTAATGAGCATACCATAGTCTAAAGGGGACGAG  
ATTTATATTCTATCCAAGAGTCATTAATTATGTTTGTACTATCTTCATCATGGTTATCATTTTCTTAGACATAGCCT  
AATCTATAAGATTTTACTGTATTTCCCTGAATTAATAATCTTCTATTTTGAAGTTTACTAAGATTTTATTGTATT  
TCCCCTGAATTACTAAATCTTCTGTTTTGAAGTTTACTAAATACTTCAGAAAGCTTTACTAATTAAGGAATTTA  
TAATGTTTATCACTAACCAAGTTGATAATAAGCGCTTCTTATAGCTTCTTAAGATAATAGCTAGAAAACAAAGCTGAT  
TTTAATTATTCTTGTAATTGCTTCAACTTCACTGACAGTCTGTTGTATATTTCTGCATATTTTCTGCATATTTTCTG  
TGACTATTTTCTCTGAGGTAAATAATTCCAATTACTTTAACCTGTCTATTGTTCTCTCTCTCTCTCTCTCTCTCTC  
TCCCCTCCCTCTCTCTCTCTCTTATTATAAGACATATTATTTGTTTAAATTTAATAGCTATTCCAGCAGTTAAATATTCT  
TATCATAAATTTCTTGCAATTTTAAATGTGGAATTCAGTACAAAACCTTTGGTTTAGCAGTAGGTAAAAGATAGATT  
GAAATTTATGTAAACATATTATTCTTCATCAGGCAGGGCTAGCTGACTGACATCTGCTTTGTTTGGATTCAAATACAG  
ATTTAAAGGGAGGCTATACATGGAAATTATCCCCAGGCTCCTCCCCGCTGCTGTTCCCAATTTCTGCAGCAGCCTGCAT  
GCTTGATTTTAGGATTCACCAATTTTTTTGGCCCTTGTGTGTGCTTGGCTTTGTTTGAATTTACTCTACAATGGCAGG  
GTCTTCTGGGAAGTGTGATGAAGTAAAGGAAAGCAATAGCCTTTGTCTGATGTTTAAATTTCCCTTAAATCTTATTG  
CCAGTGAAGGCGCTTTAAATTTTTTCAATTATAAATGTTTGTAAAGCAAAAAGCCTCTTCTGTATCTATAGACT  
AAATCAGGGTTTCTTTAATCATAGGTGGTTAATCCTCACTACTCCTTTACCCAAATACATTTTATAAGATGCTAAAGAT  
GTCAAGGAAAATTCATATCTCTGACTAACAGAAAATATTCTTTCAAAAATAAATGTGAAGTGTCTTAGTTGTCCACT  
ATTCCTTTAGGTCTTACATATTTCTATATCTATTTTCAACAAAAGCATAAATATGGGAACATTGAATTAATAAATACAT  
GAAGGTCCATACCATGTCCCTGGATCAGAAGTCTCCAAATCATAAAAATTCAGTGGTCCATCAACTGATCTGTAGATT  
TGATATAATTTAAGTCAAAATACTGACTTGTATTTTTGGGGGAACCTGCCAATCTGGGTCTAAAATTTACACGGAAAA  
GCAAAAATTAATAGGCCACTGTAGATTTTCTTACGAGTGTGAGTTTAAATTTTAAATTTTATTTTATTTTATTTGA  
ACATTTAATTTAGGTTTGGGTATATGTGCAATTTTGTATAAAGGTAAACTCGTGTCAAAAAGCATTTGAATTTTATG  
CCATGTTATCTATGGTTGAAATATAATAGGGAGCGAGTTTATTTTAAATCATGTGTCTTTTAAAGATTTGATTTATGC  
TGACTTCAGATGTGACGAGTTTGAAGATCTGAGTGTAGGAATGAATGTTCTATTGGAAGTATCTAGTTTATTGCTTT  
CAGCTCTACTGATCATGGATATTAACCAACTCTTGTGTTTTGTTTTGTTTTGTTTTGTTTTGAGACGGAGTCTCGCTC  
TGTCGCCCAGGCCGACTGCGGACTGCAGTGGCGCAATCTCGGCTCACTGCAAGCTCCGCTTCCGGGTTACAGCCATT  
CTCCTGCCTCAGCCTCCGAGTAGCTGGGACTACAGTGCCTCCGCACTGCGCCCGCTAATTTTTGTATTTTAGTAG  
AGACGGGGTTTACCTTGTAGCCAGGATGGTCTCGATCTGACCTCATGATCCACCCGCTCCGCTCCCAAGTG  
CTGGGATTACAGGCGTGAGCCACCGCGCCCGGCTTAAACCAACTCTTTAAGCAGTGTGTTGGCTCATGGACATTGGGGTT  
AAGTCTGTGTAATTAGGGCTTTAGGATATTGGGATTAATTAACCAGTTGCTGCTTTAATCCAGCATTTTAGGCATCAA  
TGGTTGATGATGGGAATGATTCTGTAACCTGCATTTATGGTCTAAGAGCTCACTGGTGTATATACCTGGGTTAATTGGG  
GATTTTAGGTAGCCAGAAATGGAAAATAGAATGCACAGTATGAGAAATCCCCCGTCTCTGAGGATGGGGGATGCTGGG  
GCCCCGTACCATCAAGTAGCACATCCACAACCTCACTCCATTTACCACATCATCACCATCACCACCACCAACAAGCACT  
TGACCTCCATCTTAACCTCAACAATCACCTCAGTCTGCCTAACTGATGCTATGGAAGAACAACAGAGACTCAGAAGGG  
TAAGAGGGTGGTGGTGGCGGGTGGTAGATGATGAAGATTACTTACTGTTGTGAACCTTCAAGATTTGAGACAAGTCTT  
AGTTAATTTGGAAGTTTATTTTGCCAAGATGGCATTGAGGATGTGCACCCCTAACAGCCTCAGGAAGTCTTGACAATA  
TATACCAAGGTGGTTAGGGCATAGCTTAGTTTTATACATTTTAGAGAGACATGAGACATCAATCAATGTATGTAAGAA  
GTGCACTGATTAGTCTGGAAGGCGGGACAACCTGAAGCAAAGGCAGGAAGACTGGAAGCGGGAACCTTACAGGTCA  
GATAAGTGAGATGAATGGTGCATTATTTGAGTTTCTGATTAGCCTTTTAAAGGAGGCAATCAGATATGCATCTATC  
TCAGTGAGCAGAGGGGTGACTTTGAATAGAATGGGAGGCAGGTTGGCCCTAAACAGTTCCAGCTTGACTTTTCTTTT  
AGCTTAGTGTATTGGGGGCCCCAAGATTTATTTCTTTTCACTAGGTTATAAGGTACATGTTTGAATGATGGAATCA  
CTAAAGCCCTGACTTCACTGCTATGCAATCTATGCAATTAACAAATTAATTTACTTTGATCCCATCAATGATTAACA  
AAAATAAATAAATAACAAAAACAAAAACAAATAGGCCCTAGCCATAAAGCAATTTTAAATTTAGCGGGGAGGA  
CAGATATGTATCTAACCAGTTATACTGGAAAGTGAGTGAGCTCAATATGCTAAAATAGAATTATTGTGCATCATAAAT  
GTTTAAAGAGGAGGGAAGGGTAATCTGACTGGAGGGATTGAGGAAGATTAGAGAAGTTGTCTATTGACTTGGCCTTGAGG  
CAAAACAGGGGTTTATTTATTCAGCAAATCAATATGTATTGAGTGCCTAGAATTTAGGAATCATTGGAAGGGCATACTG  
GGAAGAGATTATATTGAGATCAAAGATCAAAGAGAAAAAATGCAAGGAAGTTTTTGAATGTTGAGTCACAGAAGGG  
TCTTAAAGCAAAGAACTATAGGAGGAAAGAGGCAGTTGAGGAATGTAACTAGGAATATGGATCAGGGGCATTTCATGG  
ATTTTACTCATTTTATACAGTAATTGGGATACTTCTTCACTCAGCGGCAACCATGAAAGGTTTTGAGTTGAGTGAA  
ATGAACAGAGCATGATTTATTGGTGGATATGTTGGAGGGAAGGAAAAATTATACTGAGGAAGACCAATTAGAAAAATTT

Fig. 6 122

[illegible]

Fig. 6!128!

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TCTGCTTCTAAGGTTGTTTCAGCCAGCCTTATAATGCAACTAGTGTGAGAAGCAGTGACACAAAAAGAATAGAGCCAA  
ACTTCAGGTAACACCCTTTTAGGAGTGGAGAGAAGGGGACCTGTAGAAGTAGAGAAAGAAATCTGAAAAGGGGAAAACCT  
AGGAGCATCAGGGTGAATTGATGCATGTGAAGCAGGAAGAAAGGCTTAAAAGACATTGTTAGTGGGGAAATGAAGACAGA  
TAAGAAAAGAAAACAGGCCTTTGGAGCTGAGGTCTAGGAAATTATTGGTGGGGGGAATGCAACTGAAATTGCTAGGAGTT  
GAGTCAGGCAGCTATGAGCAAGTTCAATGGTAGGTATAAACCATGCTTTCAAACAAAAAGTTGAAATAAGAAAACAAG  
AGCCCAGATGCTAAGGACATGGGGAAATTAAGAAAACAGTTGAGGTAGAGAAAGAATTTAAGGAGGGCTGAATGCTATA  
ATAGCTGCCATTATTTGACTGCTTATTATGCACCGTGGAGAGTTCTAAATGCTTTAGCTAATTTAATCTTCATGAGACA  
CCTAAGAGATAAATCCTGCTATTATTATTCATTTTTGGATAGGAGATTAAGGCACAGAGAGGTCGTACAAAACAAGTGA  
GTGTCAGGATTCAAAGAAGGAGGTTTTGCTCCAGAGGCCTCCTGAATTTAACCCTGTGCTAGAGACACAGGGACATTC  
AATGGAGCATTAAATGTCCCGAGCTGGTGACAGGTGAGCTGAGGCTATAGATGTGTTGAGGAGTCAGCATCAGTGGAGG  
AGGAAAAGAGATGCGGATGGAGGGAGACTCGGTGTCTTTGAAATAGATAAGAGAGAGAGACAATGTAATGGTTTTCCACTT  
GGCACAGAAAGAAATGCCTTACTAATTAGAGGACGAGGACACAAGAGGAGCCTAAGAAGAATGGAATGAATTAGAA  
TCATCACTGTGGAGTCTGTGATAGGGAGTCAACTAAAGTGGAAATAAGTAATTACCAAATAACAAATGAGGGGTGAGTGA  
CGGCAAAGGAATATGTTTTGTAATAGAGGCTTCGCAGCTGTATCTGGAGCCTGGGAGCGCAGGCTGAGAGGACATTGAG  
ATGTAATGAGGGATGTGACATCTTAGACAGAGAGAGAGCTGGGATGCTCTCAAGAACTTCATTGATATCCCTGTCTGTA  
ATAGAAAAGAGGTAAGTATAGCAAAAAAGTTAGAGCCATAATGGTTTTTACATTTTAAAAATTGGATTATGATTAAAGG  
AAAACATTTAAAGACCTTGTCTAAAGGAATATAAAATTCCTGAGTCTAGGCACTCTCCATAACTTAAATTAAGTTCCCT  
ATTTCTTCTACAGGAATACTCCTCTGTTATAAGGATTCATAAAATATGGTGACTTTATTGTTATTTCGAAAGATTATAGG  
GAATTTTAGGAGGTGGTATGGGTACAGAGGAGTCCATCTACAAAACGTTTTTAGCCCATCTTCTAAGCTAAGCTGATT  
TTGGAAAAGGAGCTCTTTTAAGGAGAATAAAGCTACAAAATGACCTTTTAAACTGTCCATCCAGCTCTGGCTCTCT  
AAATTGGAATCTTTGACAAAACACAGCTGGAAGACAGCAGCCAGTAATACAGCAGCCATTAAATACAGCTCCATGTCCTCA  
AAGAGGAGGGATGTTTGTCTTACTAATTACACAAAACATGCAATATTCAGCCAGGTGTGATGGCTCACACCTGCAAT  
CCTTGCACTTTGGGAGATCAAGTCAGAGAATCACTTGGGCCTAGGAGTTTGAGATTAGCCTACCAATGTAGCAAGGC  
TCCATGTCTTTTAAAAAATAAAATTAAGGTAATAAATAAATAAATGCAATATTTACTGTAAAGATGTGCTTCTTGAG  
GATGGACTTGAAATGGTCCACCACCAGGACATTAAAGACAGGGTCTGCTCCTGCTTTCTCCTGAGAGAGGAAGAACT  
GGTAGATTTACAGAAGTATCAATACCAATATTCTTAGTGATTTTAGTATTCCTGCATTTATAACAGAGCATCCGGTAA  
TTGACTTGAAATTTGACCTCAGCTTTTCATCCAGTATGCTAATGATGGTATAAAATTTACACTCCTTACATAAATAAAT  
GTACCTTCAATGTGTCAATTTTCTGCAATTGACAGATGGATCCCATGCTTAAATTTACCAAAATTCCTTATCTGAGCA  
GCTTTGCACAGCACTCTGCATCCACTTTTGTGTTTGGCCAGTTATAGCACTGCTTGTGCCCTGAGCTTGGCTCTCAAG  
GTGGCTACAGCGTGACATTTTCTTGAAGAGCGATAGGCAGAAATTTAATGATTTTCAATTTGCTTGGATTCTCAAAGGC  
TTCTGTGGCTATGCCTATTACCTAACACTGCTCTCAGGAGGTATAAAGCTGTGTCCAGTTGTTCTTGTGTCATGTCATT  
GAGTGATTTGGTGCCACTTGCAGCAGCCCTTCTTGCAATTCGAATGACTGCATTCTGATCTATTATGACATAGAGACT  
CTAGGGACCAATGAGGTTTTTGTGTAGGAGGCTAACTTTTATTTTCCCTTATAGTTCTTGTCTGGATTTTCCCCCT  
TTCCTATCTATCTTTATAAAGAGACCTTAAATGAAGGCTACAGCTATAAGATGAACAAATAGCTGGCTATTAAAAATCT  
CCAAATTGTCATATAAATGCAACATGATCCCAATGATTGGTTGAATAAAATTCAGACTTTACTGATTGGAGGTGGG  
CAATTTCCAGTTATAGGCTGACCTTCCACTTCTTCAGAGCTAACCTCTAAACAAGATTAAGCTTATGTCTAGGATGG  
GAGAGAGAATGGCTGGAAGAAAAGAAGATGTTTCACTTCTTATGTTGTGGCTTAATGTAATGGCTTAAGAACAAATAAT  
TATTTTTTTTCTCACAATTTGTTAGGCCAGATCAGGTATTGGCTTGGTGATTCTTCTCTTATGTTGGCATCAACCTAG  
CTGCATTCACTGGTGACAGGACTGGGCTGAGCTGGGCTGGGCTGGGTTGGTCTGGGCTGGAAATCCAGGAAGCCTTC  
ACTCCTATCTGTGGTGCCTCAGGGCTCCTCTGTATATTATCTTTTCTTCTACTGTCTATAGTGTCTCTAGAGAAATA  
GAACCAATAGGCTGTGTGTGTGTATATGTATACATACAGCCTGTATGTTTGTGTGTGTATGTGTATACATAAACATA  
CAAATGAGGCATGCCTCATTTTATTGTGTTTTGCTTTATGGTGCTTGACAGATATTTTATTTTTTCAACCAATGAAGGT  
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ATTCTCACAATATTTCAAACCTTTTTCATTATCATTATATTTGTTACGGTGTATGTGTGACCAATGATCTTTGTGTGTA  
CTATCATAATTTGTGTTAGGGTTTCAAAAACCATGCCTATATAAGATTGTGAATTAAGTGATAGATTGTGTGTTTTCTG  
ACTGCTCCACCAACCATCTTATGCTCATTATATCTCTCTGTCTCTCCTCAAACCTCCCTATTCTCTGAGACACAA  
CAATATTTAAATTAGGCCAGTTAATAATCCTACAATGGCCTCTACATGTTCAAGAGTTTTCAATCTTTTCTTTAAAT  
AAAAGCTAGAAATGATTAATCTTAGTGAGGAAGGCAGCTTGAAGCTGAAATAGGCTGAAGCTAAGCCTCTGTGCCA  
AGCAGCTATCCAAGTTGTGAATGCAAAAAATAAATAAAGTTCTTGAAGTTCTGAATTTCTGAAGCAAGAAAGTTCT  
TGAAGGAAATGAAAAATACCACTCCAGTGAACACATGAGTGGTAAGAAAGCGAATAGCCTTCTGTCTCATATAGAGAA  
AGTTTTAGTGGTCTGGACAGAAGGTTCAAACCAGCCACAACATTCCCTTAAACCAAAGCCTAATCTCAAGCAAGCGCCA  
AATCTCCTTATTTCTTTGAAGGCTGAGAGAGGTGAGGAAGCTGAAGAAGAAAAGTCAGATGCTAGGAGAGGTTGGTGC  
ATGAGGTTTAAAGGAGAGAAGCCATCTCCATAACATCAAAGTAAAAGGTGAAGCAGCAAATGATGTAGAAGCTGCATCA  
AGTTACCCAGACCTAGCTAATGCCATTGATCAGTGGCTACACTAAATAACAGATTTCAATGTAGAGGAACAGCCTT  
ACATTGGAAGAGATGTCACTAGGACTTTTCATAGTTAGAGTGGAAGTCAAGTGGCTAGCTTCAAAGGACAGGTTGACT  
CTACTCTTAGGGCTAATGCAGCTGGCGACTTTAAATTAAGCCAGTGCTCATTTAGCATTTCAAATACTAGGGCTCT  
TAAGAATTATGCTCACTGGTTTTCAAAGAACTTCTTGACTACTGCCTTAATTTCAATTTTGGCCAGGAGTTATTAGGA  
GCAGGTTGTTCACTTTCCATGTAGTTGTGTGGTTTTGTAATGAGTTTCTTAATCTTGAGTTCCAGTTTGAAGTGTGATG  
GTCTGAGAGACTGTTATGATTTCAAGTTCAATTTGCTGAGGAGTGTTTACTTCCAAATATGTGATTGATTTTAG  
AGTAAGTTGTCTTGTGGCACCAAGAAGAAATGTATATTCTATTGTTTTGGGTGGAGAGTTCTGCAGATACCTATCAGGT

Fig. 6.129

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TCACCTTGACCTAGAGCTGAGTTTCAGGTCCTGAATATCCTTGTAAATTTTCTGTCTTGATTATCTGCCTAATATTGACAG  
TAGGGTGTTTAAGTCTACCACTGTTATTGTGTCTAAGTCTCTTGGTAGGTCTCTAAGAAGCTTGTCTATGAATCTGGCT  
GTTTCATGTATTGGGTGCATATATATTAGGATAGTTAGCCCTTCTTGTGTAATTAATCCCTTTACCATTATGTAATGTC  
CTTCTTTGTCTCTTTTGATCTTTTGTGTTTAAATCTGTCTTGTGTCAGAACTAGGATTGCAACCCCTGCTTTTTTCCG  
CTTTCTATTTTCTTGGTAAATTTATCCTCCATCCCTTTATTTTGGAGCCTTGTGTATCTTTGCACATGAGATGAGTCCCT  
TGAATACAGCACACTGATGTGTCTTGATTCTTTATCCAGCTTGCATCATGATGCTAGCTGGTTATTTTGGGCAATTTAACTCAT  
TTACATTTAAAGTTAATATTGTTATGTGTAAATTTGATCCTGTCTCATGATGCTAGCTGGTTATTTTGGAGACTTGTGTT  
GATGCAGTTGCTATATAGTGTCTTGGTCTTTATATTTTGGTATGGTTTGCAGTGGTTTGTAAATGGTTTCTCCTTTAC  
ATAGTGTCTCCTTCAGGAGCTCTTGCAAGGCAGGCCCTGGTGGTGACTAATTCCTCATCATTTGCTTGTTTAAAAAGGA  
TTTTATTTCTCCTTTGCTTATGAAGTTTAGTTTGGCTGCTTTGAAATCTGGGTTTGAATTTCTTTTTTTTTTTTAAAGA  
ATGTTGAATCTTGGCCCCCAATCTCTTCTAGCTTGTAGGGTTTCTTCTGAAAGGTCTGCTGTTAATCTGATGGACATGA  
ACAGACACTTCTCAAAAGTAGACATACATACAGCCACAGACACATGAGAAAAAGCTCAACATTATTGATCATTACAGA  
AATGCAAAATCAAAACCACAATGAGATACCATCTCATGCCGTTGCGAATTATTAAGGTCAAGAAACAACAGA  
TACTGTTGAGGCTGTGGAGAAATAGGAACGCTTTTACACTGTGGCTGGGAATGTAATTAGTTCAACCTGATGGAAGA  
CAGTGTGGCAATTCCTCAAGACCTAGAACCAGAAATACCATTTGACTCAGCAATCCCATTAAGTGGTATATGCCCAA  
GGAATATAAATCATTCTATTATAAAAAATACATGCATGTATGTTTATTGACGACTATTACAAATAGCAAAGGCATGG  
AATCAACCCCAATGCCCAATGATAGACTGCATAAAGAAAAATATGGTACATATACACCATGGAACACTATGCAGTCA  
TAAAAAATGAGATTATATCTTTGAGGGACATGATGGAGCTGGAAGCCATTATTCTCAGCAAACTAACTCAGGAA  
CAGAAAAAGAAACACCATGTTCTCACTTATAAGTGGAGCTGAACAATGAGAACACATGGACAAAGGGAGGGGAACA  
ACACACACTGGGGCCCATTCAGGGGGTGTAGGGGAGGGAGAGCATCAGGATAAATAGCTAATGCATGTGGGGCTTAAG  
TCCTAGGTGATGAGTTGATAGGTGCAACAAACCACAGGACACACATTTATCTATGTGACAAACCTGCTATGCTGCAC  
GTGTATCCAACAACCTTAAATTAATTAATTAATTAATATGCTAAATCTACTCTCTTTGTGCTCTATAAATGGAACAA  
AGCCTGTATTACCGTATTTCTGTCTGCAGCATGATATACTGAATATTTTAAAGCCACTATTGAGACCTACTGCTTAGGA  
AAAAGAGATTTATTTCAAAATATTACTGCTCATTGACAACGCACCTGATCACTCAAGAACTCTGATGAAGGTATACAAG  
AAGATGAATGTTTCTCATGCTGCAAAACACATTCTATTCTGCAATCAATGGATCTAGGAGTCATTTTGACTTTTCA  
AGTCATACTATTTAAGAAACACATTTCTACAGCTATAGCTGCTATAGATAGTGAATTTCTCTAAAGGATCTGGGCAAAG  
TAAATTTTAAACCTTCTGGAAGTATTTTACTACTCTAGATACAAATTAAGAACATTTATGACTCTCAGGAAGAGGTCAAG  
ATATCAACATTTACCGGCATTTGGAAGAGTTGATGCTAACCTCATGATGACTTTGAAAGTTTCAAGGTTGCAAGTA  
GGAAGTAACTGCAGAAGTGGCTGAATGCTGCAATTTTATGATAAACTTGAAGAGATGAGGAGCTACTTCTTATGGGA  
GCCAAGAAAGTGATTTCTTGAATGCAATCTACATCTGATGAAGACGCTGTGAACATTGTTGAAATAGCAGCAAAGGTT  
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CTGAGGAAAGATGTTATCAACAGCACCACATGCTACAGAGAAATCTTTCATGAAAGGAAGAGTCAATGGATGTGGCA  
AACTTCATTGTTGATTTATTTTAAAGAAATGACATAGCCACCCCAACCTTCACAACCCCCACTCTGATCAGTCATCAGC  
TACCACATTTAGGCAAGACCTCTGTGTCAGCAAAAGAGTGAAGTTGCTGAAGGCTCAGGTGATTGTTAGCATTTTCT  
AGTATAAAGTATTTTAACTAAAGTGTGTACACTTTTGTAGTTACAATGCCATTACACACCTAATAGACTGCAGGATAGT  
GCAATGTAAACATAACTTTTATATTCACTGAGAAACAAAAAATTCATGTGAGTTACTGTATTACAATATTTGCTTTAT  
TGCAGTGGTCTGAAACTGTACCTCTATATCTTTGAGGTATGCCTGTGTGTATGTGTATATATGTATGTATACACAC  
ACACAAACACACACACACACACACACACACAGAGAGAGAGAGAGAAACAGAGATTATTTTAAAGATGGCGTGAACC  
CAGGAGGCAGAGCTTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAGCCTGGGTGACTGAGTAAGACTCTGTCTCAAA  
AAAAAAGAAAGAAATGTTGTTTCAATTTGTTGATGGAAGTTGTTGAGTCCAAACGTCAGGATGGTCCAGCAGACTGAA  
GACCAAGGAGTGGATTTTGAACCTCAAATCCGAAGGCTATCACTGGCAGATTCCCTCTTCTTTGAGAACATCAGT  
TGTTTTTGTATTGTTGCTCTTAAAGCCCTTCAATCTTTGAGTGAGGCCCATCCACATTATGGAGGTACTCTATTTTA  
CTCATTTACTGATTAATCTCATCTAAAAAGTAGTTTACGGCAATATAGATATGTTTGACCAATATCCAAGTACCATG  
GGCTAGCCAAAGCTGACATATAAAGTTAATCATCTACTCTGTGTAGTGTCTCATCATTTAGCCCAAGAAAGCTTGGG  
CTTCTTTACAGCATAGCAGCTGGCTTCCAGGGAGAGCAAGTGGGTCTGTGACAGCTGGGCTCAGGAGTCCCGGATAT  
CATTACTGTTGCAATCTATTGGTGAAAGAAAGTCACAGGTCTAGCTCATAGCTAAGGGGAAGAAACTACAACCTACTT  
CATGGTGTGAGGAATAGCATATGTGGGCAGGGATGAGGGGAATAGTTGGAGACTAGCTATCACAATCTTCCCTCTGGCC  
ACAGCACTTCTGTCCCTTTTTCAGAAAGTCTCATCATTACAGTGCTGGGCCAGCTTCAAGGTCCAAATACATAA  
TCTAAATTTGGGTATATTTAAAGTTGATGTTCCCTCTTTATCTAGATACTTGTACCTAAATGATACCTTCTGTGTAATC  
CCCCCTTCCCTGCAACATACATTGATGAGACAGGGATTGTTGTATCGCTAGCAAGAAAGTCAGCCATTCAAAGGAGGGA  
AATGAGAGGCACATAGCAATCGGTGCTTCATAAAATCTGAGATCCAGCTGGGAACATGTTACCAATTCCTCAAATC  
TAGGTTTCTGAAAAGGATCCTGTTCTCTGGATGTGGATTTCTATTCCATTGTTTTAGTGCCTGTTGACTCTCTCCTC  
TAAGTTAACCTTCTTTTCTGTAAGAAATGGCCCTCATTCGCAACGGAGTCACTTTGTGAGACTATTTATTCCATTAA  
AGGTTTGGAGGCCATAAATCTTCTTTTCTGTTGCTGCTCACTCTCCCTTTTCTTCAAGGTGGCACAGCTTCTTTT  
AACTTTGTAATTTTCTAATGTATCCAGTTATATTTCTTCACTTGGGCGAAAGCTATTTCCCAAGTCTCTTTAAGAC  
AGACACTTTTCTTCTTAGACTGAGAGTCAGAATCCTGTGCAGTAACGTTTTTAAGAGTTTAAATCAACCTTGTCTCCTA  
GCAGAGTGAACCTATAAGGGTTTTAAGAGGTATCTTACTACCACATTCTTGACTTGATATTTACCCTGAGGCCATT  
GTACTAGCAGTACTTGATTTGATCAGAGACCATTTTTTACTCTGAAAACCTTCTGCCATCTGGAGGGGTTGAGAATGAG  
AAATAATATTATTTCTAAGCCAGCAAGTCCTGAGTTGGACTTTGTGGATTAAATAACAGTTTCTTATTTCTGATGGG  
TAGGATTTTCTGAGTATGTCTTCTGCTCCATGTGGTATTGATTAGGTAGGTCACTTACGTGGCTACATTTAGTCAATA

Fig. 6. 30



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GCTGGTCTGGGCTGGATGGTCCAAGAAAGTTTCAGTCAATACCTGGCACCTCTGAGCTTTTCCATATGGCCTCTATGT  
GGAATCATCTTGGGCTTCCTAATAGTATGGCTGATTAGACTGGTCAGACTTTTTTTTTTTTTTTTTTTTTTAAAGTGG  
AGTCTTGGCTCTGTTGCCAGGCTGGAGTGCAGTGGCATGATCTCGGCTCACGGCAACCTCCGCCTCTGGGTCAAGCAA  
TTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTACAGGTGTGCACCACCATGCCAGCTAATTTTTGTATTTTTAGC  
AGAGATGGGGTTTACCATGTTGGCCAGGATGGTCTCGGTCTCTTGACAGCTGGTCAGATTTTTATATGGAGGCTGAC  
TCCAAGGGAAGGTGTTTTAAAGGAACAGGCCTGCCAATGTGCAAGCACTTATCTAGCATTGCTTGCATAATTTTTCT  
AATGTGCCAAAGTAAGTCATATGGCAAGCCAGGATCAACATGGGAGAACTACATGAAGTGGCAGTGCCAAGAGGTAG  
CATTTATTATGGGTCACCCATATAACAATCTCTCACACAGAGTAGTTTGGTAGCTGGACAGAAATAAATTTGTCTATCTT  
CTTGACCTTTTACTAGTAGTATAACTTAGGGCAAATGTGTGTCTCTGGGATTCTTATTTGCTGCTTGTAAATAGTA  
AAACATGACACAGATGCTACTAGATCTTTGTGACAACTGTACACACATATGCATACACACACACAGAGGTACTCACAG  
TGGTACTTAACAATGGCTACTATGTTTTAATGGTGTACTTGGCAGACCAGCAGTTAGGTTTTGAATGGACTAACTGTGG  
TTTTATCATATCAGGACCAGGTTGTAATCAGAAATCAGCGCTTGCAATAGCTCAAGGTGATTAAAGGTAAGGTTAAA  
AGTTAGAGAAAGGTTGGTGTAGATACTATTAGTTCTTGGCCAAAAGCTGTTGGCCTTGGGAGAGGTGGAAGTTTTGA  
GATCAGGGATCACAGTTATATGAGAACACAGTGGTGGTGAAGTTTGAACAGAAAATAAGTCAGGATTATACGGGG  
TCCAAAAAGCGGAGTCAGGGCACTCATGAATCTAAACAGATATAGAAGCTTATGAGTCAGAGACAGAAATCAGGG  
ACACAGGCAAGAAATCCAGGAAAACAAGAATTAGATATACCCAGTATGTTGAGACAAAATAGCTATGGGGCGCAGAGGCA  
AGAGAAAATTTGGTAGTTTGGAGCCATTGTCTCCAAACATAATTATAGCCAAAAGTAAACATGTTACAGCATGTGG  
GCAGATCTTGAGCCATAGGTGGAAGAACATCTGGTTAGAATACGATGGCAGCAAATTTGGTAGCTCTGACATGCATC  
AGAACCCCTTTAAATTTTCATGGGATTGAGTTGTTCTTCAATTATTTCAATGATCTAATCTTTAACTTTCTTGAGAAT  
ATGATGTTTTCTTAAAGGGGACTCCACACAGAACTGTGAGGCTATGAAGCTGTGATGGCATTGTTAGTACTCAC  
ACAGTTCAAAAATGATGCTATCTCTGCCATCTTTTGTTCATCTGTAGAATAGTCCATTTTTTTGGTTATAGCAGT  
CGTCTTCTTGAATGGTCTTACCCAGAGGGAATCGGAATTCGGGCTACTCTATGCTCAGTGCAGAGTCAGGATCAGGAT  
TTTTCTGAATCATTCTGAGCATCTTATCTTCTCATGCTGATTATTATTTTCACTGCTGAAAGCTTATGCTCTCTTATA  
AAGTCACATTGTACTTTCTGTTTCCATTGAAAATCTGAATAGAATAAAATGAAATCATTTAAAGTCATGTTTAAAGAAA  
AGTAGAGTTTCTTGATTAAAAAGGAGAAATTTAGAGTGGCATTCAAAAGAAATACATTAAAGGAAAAAGTAGCATGCA  
CTCATGCAGTTCTTGTGGGAGGATAGTTTCTTTCTTCTCATTGCGGCCATTAAAAAGTTCAATTAATTTCTTTTAA  
AGATTTCAATTATGAATGTATCTTAGGCATTGATAGGGAGTAATTTTTAGATCTGACTTATTTTTATATATTATGTTT  
ATTTTTATAGCTTTCTGAGATTCTTGGCAGTGAGTCAGCACAGCATTCTACCTATAGTCCAATTTATATGAGTCC  
TACTTTTCATGCACCACTGTGATAGTGTCTCGGTTAGTGCTATCATGGTCAGTAGCCTGAAGATCTATAGCATCTA  
CATATTTAGAATGGATTTTTAATGTCTATGAGAGCCTTTATTTCTCCACTACCCGGTCTCTTGTGGATCTGAGTCTG  
AGGAGAACATAACTGTCAATTAGAACCCTTTTAAAGAAATGTCTGTAATTAAGATTTTTGATGACCGAGTTATTAATTA  
GGAAACAGGGTCTCCATATTTGCTCTGCTGCTTCTTTATGCTCTAGAGCAAGGGTCAGCATACTTTTACTGTAAATGG  
CCTGGTAGTAAATATTTCCAGCTTTGTGGGCCACATCAATTTCTGCTACAAATACTAACTGCCATGTGGTACAACAGCA  
GAAAAGGACCTATGCATAGACTGCTGTTTTAATGTCAATATAGTATCAGTAGAAAAGACAGGGCTTAATAAAAACTTT  
GTGTAATATGGTCTCTTTGGCATAAAATTAAGAAATGTATAGAAGTAAACGTTGTTACAAAACCTTTTGCAAATGTGTG  
TCGCTTTTCCAGCACTCACGAATAACAGTCATTTTAAACAGACTTCTCGTTTTTGGCCAGTATTATTTGTCTCATC  
TAGTAACAGTCTAGGACAGGTGTGACAACTACTGCCACAGGCTAAATCCTGCACCTTGTCTTTTCCCTCATGCCAC  
ATAGATATTCAATGAGGAATCTATGCACAGGTCTTTGACCCACCCATCAGCAGAACATGCCCTTTCTGGAGCTCCATT  
TCTCACTCTCAATAGTGTGACCACTTAGGAGGAGCTGTCCATGTTCTTTGTTTGAATCTCTATGAAAAATGACAT  
CTTTTCTGAAGTGATTGCTGGAACATAATGGGGCCTTTTGTGTTTGCAGACCTGTTTTCTCAGTGAAGCTGGCAGGGAC  
TGTAAGGAATCAGAATTACAATCTTGTCTTTATAGCACTGTGTTTGCATCAGTCTCTCCTGAGAAACAGTGCAGGT  
TGAGATAAATTTCTCCTGTGAAGTGATACAATTTTCACTCATATGCATGGCCTTTGTGCCATGCAGAACACA  
CTTTTTACTGTTGTTGATGTAAGTGAGATGTTATTAAAGAGTTTATTTAGTATTATTTAGATAATAACCAATAATTG  
AATGCTTTACTAGTGTTTACTACAAAGGTTTAAAAATCATTACTACCTATAAACTGAGTAAATAAAAATGATTAG  
AACTAAAGATAATCTCAAAATTGCACATTAGATAGCTATCCTATGTTGTAAGATATTGAGTCTGCATCATAATATTT  
GAAACAAATACAACATTTACCATAAGACAAGAGCAAAATGCACAAAGAATCGAGTGTCCATGCAATAGGCTTTATGA  
ACACAAAGCCTGTGGCCAAAATGAGGCAAGAGGAAGTATGAGGGGTACACAGATGTCATGTGCAGTACCACATACCACC  
CCTGGGAGTGATAAACTTTTTTGTGATTTGCATTGACTGATTTTTACTTTTGTGAAAAACATAATGTGCTGGGGAAAA  
TCACATCTGAATCCCAAAAATGTCCATGGTATATTGACATGTACCCCTAATTTATCAATTTTGTATGAATGTATTGCA  
TTAGAGAAACATGTTTCAAGATACATTGTGCTTTGCAAGTGTTTGCACCTGTTGCAAACTATGTGCTTTATCTCACTGAA  
TCTTCACAAATTAAGTGCATGCGGTGGGCACTATTTTTCATGCTGTTCTACAAATGAGTAGACATATAAAAGTTAAATAAC  
TTGCCAGTGGCTTTGAGGAAATACGTAACAGTATATTAGAGATGGGATTGAGTTATTCTAATTTTTCAGGAAGAAGAGGA  
AAGTGAATTTCTCCCACTTATGTCCTTAGGGAGTAGGACATTAAATGATTTTCTTTTAGTCTTTTTGCAAATGTTACT  
TTCACAGAGGCTTCTCATGGATCCCTATCTAAATTAATCCCAATCTATAGACTTTTGTGTTTTAAAAAATAGAGGCCA  
CAATGTACATACTCCAAGACCAACTGCCATTAGCCACATAACCAAAATTTAAATATCTCAATTTTCTCCAAAATACATA  
GGTCTAACCAATAACAAACAGTGAATGTGAGCTTTTTCATCTTGTCAACATGACTCAGTAAATTAACCAATCAGCT  
GCAGACAAATCAGCTTAAACAGTTTACTTGTCTTAAAGGAATATAAGTTTATGATAGCCCAACACAGCGAAGACAGA  
TGCAGTTCTCTAATTATGCTTTATAAGCTGCATTTTAAATGTGTGTAACAGAGCTTCTTACCCTTTTGATTGAGGTC  
CCTGGTTTGCAAACTGTCTTTTGTATGCTCAATAAACTTTAAAAAATTTTTCTAAGTTGATCTGATTTTAAACACATT  
TATCTACTTTAGTGCTTTTTATATCTTAAACACATGACGCTAACATTCTATATAGCTCACTTGTGTTTACTGTTTATTT

Fig. 6. 13j

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TCTCTTCCCCTACACTAGTGAAATTCTATGAAGGCAGGAATGTTTGTCTATTGTACACTACTGTATTTCCAGTGCCTAA  
TATAGGCACTCGATAAATAATTATTGAAATGAATCAATCAATTGATTAACTCTTAGGAAAAGTTCTTTAATGGATCT  
TAAAAAAAATCTTGTGAGCCTTTAGAAAGGAAAGTGATGATCACCTGGAGCTTGTATTAGGTCATAATAGTAAAGCA  
TATCAGATTAAATAACTTACTTTTCCCATAGAACCTTATGCTTAAGATGTAGGAAGGCAGTTGATGATACTGTTAGGCAGAGTAA  
ACGTTTGATAAAAACTTCCATGATGAACCTTATGCTTAAGATGTAGGAAGGCAGTTGATGATACTGTTAGGCAGAGTAA  
CAGCTGAATGCCTGTATTTCATGAATCAATGTTTATAGAGAGAGACCTCTAGTAATTGGCTGAAGGATTTGGTCTTCACATT  
TCCTGTTTACCATTTCATTGTTAATTTTGGAGGGTGGTATTATATGGGCATAAGGAGCTAATCCACAGATGAAATAAAAAAT  
GGCAGGAACCCTAATATGGCTGTAAACAAAATCAGCATACAAAATTACTTGACAGACTAATCCACAGATGAAATAAAAAAT  
ATAAGACAAAATACTAAATGAAAAATATAAAGTCTAAAAACACCAGAGGGAAGTAGGAACCTAATGTTGTTTGGAGGCAAA  
TAGGAGCAAAGGTGAGACATAGTTTAAATAACAACCTTAGGTTTGGTGGTAGTTACAGAAGCATAAATCAATAATATGA  
CATTATTTCCCCCAAATATTTCATTCTTGGGTTTCATGAATAGAAGTGGGTTTAGAATAGAAAAGGTAATGATTTG  
GCTGTAAATTTATGTTGCTTCTCCCATAGCTAGAGCTATGACCCCAATCCTGGGCAATTCACCTTTAAGAATCTTGAGAA  
GTAGTGACACCTAAACCTTGCATCTGGAAGATGAGTCCAAACTGTGTACGCTGAAGAATACCTAAAGCTGTG  
GTTCCAACTTATGGCCTTCAGATGTGTTCTAAATGGCCCATGAGATCTTGGGTTTGTAGAAATTTGAATTTGCGGCAGATGTT  
TCAAAATTAGTAGATGTCTCATTAAATATAGATTTCTGGGATTTACTCTTGTCTACTGTGAGGGTGTGTATCCTGTGTT  
TGTGTTCTCTCAGACCACTTTACTCATTCTTAAATTTCTGGTGCCTATAGCAATCGGGGTGCTAACACCCGGGGG  
GATAAAAAAGGACTGGGGAATTCATGGCCTGTAAACAAGGTTGGGGTTGGAGAGATATAAATATATCTGGAGAGCTTT  
CATAGGGCAGAGCAATTAGACCCAATCTTGTGTCCCCAAAATGTTAAACACTGGTATTAATAATAAGAAAAATATTTT  
CCATTAACCATATAGAATAACTATCTTATAGTGACTTGAGACTGGCTATTTTATTCATCTTTTGTCTCAGTACCGAG  
AAGAGTTTCTGACAATGTTTGTACTCAGCCACTCTTAACGAATAAATGTGGCAAAACAGGTTGCGAGTGGTGAATTC  
ATTCCAGGAGCAGCTAGAATATATGCTCTTTGAGAGCAGAGATCTTTGTCAATTTTGTTTACAGCTATATCAGAGCACC  
TAAATCAGTGCCTGCCATGTAGTAGGAGCTAATTAATATTTGTAGATTTTCAATTTGAGATATTCAAACATAGAATC  
ATGGTCTACTTGTGCTGCTGTAGGAAAAAGTAATTAACAATATAAGTAGAGGGTCTAGAAACAAGGGAATACTGAAG  
TAGATGACATTTAAAGTTACTGCCAACCTGAAAGCCTATCAGACAGTGACATAGAATGGGATTATGTATTTTACATTA  
AATATTAAGCATAGTAAAGTTAAAGTAGTGTAGGTATGTGTGGTAACAAAACCTGAGAAAGCAGTTTGGCAGTTATTTAT  
TTATGGTATGGACAGGAAATTTATGGCTAGATTTTAAATGAAAATATCCAATAGTTGAGATTTTCTGATATTTAACT  
ATATCTTATATCTTATGCTCATATTTGATGACAGTGATTTTCCATTTTCAATCGTTTTGTGTCTAAGCAGCAGTTA  
ATCATTCTACGTGATGCAATATATCTTTTATCTCTGTTTATTTGTAATTTAACTTACAAAACACAGTTGCCTTGAGG  
TTTGGCATGATTTGTTATTTCTATCTTCAAGAAGACCCATGATAACAAATCAAATCATTGAGAACTGATTTTCAGTTTCT  
ATTGTTTGGGGTGGTAACTGAAGGTGACGTTTTGAAAAATCATACTATAACTAACTAGAAAATAATGTTTCCAGAGCCCA  
ACATGTGGCAAAGGAACACATAGTTAAGTATATAGTTTTTAATAGAAATCTATGCACCTTTTATTGTGAAGGTCTAGC  
ATTTTAATATTTTCAAAATCCAGAAAGATGAAAAATTTCTTTATAAACTTGAAGGGAAAAATAAAAGTCTAAAGCCCTG  
AATTTGAGTTCTAGAAATGAATGTATTTAAATGCACTCTGAGGTGCTGTATGCTAACTATGTAAAGCAATAGCTTAT  
TAAATCTTGGAACTTGCTGTTTTATTTGAAATTTGATATGTTAATAGATTTTGTGTTAAATGTTATTTTATAAGGGATA  
ACATTTTCTCTGCTTAGTTTCAGGAAAAAGAAAGAACCACTTAATTTTAAAGGTTAATGGATACTTAAATGGTTG  
GATTAGACCTATGCATCATCATGTTTACAGCACAGAACAATGGGAAAAATTTCTATTATGGAGCAGTCCACATAACCT  
TAATATCCTGTATCATCATTATCATCATTATTATGTGTTGAGTATACAAGCGTCTATCTCTGAGGAATATCTAGCAATT  
TATGAATTTGTTTAAATAGTTTCTCAGCCTTCTCATAGGGCATGGGGACATATTGCTTAAACCCTAGTTTATAGAGCC  
AGCCTTAGGTAATGTTGATGCAACACTGTTTTACTTTGGTGACTCTTCTGCTGACGGGATACCTCCTTTTGCAC  
AGCACCTTATTTCTCTTCTGTAACCTAAAGGAGAAAAATTTATATACATTTTATACTTAAAAATACGTAGTTGAGAAT  
TTCAAATATATGCAAAAGTACAGAGAATAGTAATTTGGTGGCGGAAAGTAATGTGTTTTTTTGGCATTAAATGGCAA  
AAACCACAATTGCTTTGCCCCAACCTAATATAATGCATCTTAAATACTCATCACCAGTTTAAACAATTCTCGATATAC  
AACTAGTTCTTGTTCATCTGTACCTTTACCCATATTTCTCTCTACAAATTTATTTTCAAATTCATACACAATATTT  
CTTCATCTGTAAGTCTTTTAGTATGTATCTAAAAATAGTCTTTTAAAAATTACCTCAATAACATTAAAGATCTGTAAA  
TTTTCTTAAAAAATTTCTTAATAATTTCTTATATCAAATGTAGCTGATTTTAAAAACAATTTTATTAATAATTTTAA  
TTTTGGTATGAAATGGTAGCAACTAAGGTTAACAGATCGAAATCATTATGTGTCTGAATTTCTTTTACACTATAAAT  
TTCCTCTTTCTATCCTTTCTCTGACCCCTTTAAAAAACTGGGTCATACATCTTACAGAGTTTCTCATAGGTTCAA  
TTTTGCTGATTGTATCTCTATTGTGTTGTTCAACCTGTCTTTGAATTTTCTATAATTATTAGTTAAATCTAAAGGCTT  
GATAAATGACTAATGTTTTATTATTTTGGAGAGGATAAGCATATTTTGTGTTTTGTTTCCCAGCTTTATTAAGGTATAA  
ATAATAATAAAAAATTGTATATATTTGAGGTAGACATGTGATGACTTGATATAGGTATACATTGTRTAATGATTACCAC  
AATAAAATTAATCAATGCATCCATCCCTATAAATGGTTACCTTATTCTATGTATGTATGTGTGTATATGTGTGTG  
TGTGTGGTAAGGATTAAGTATTAAGGATACTTAACATTTACTCTTTAGCAAACCTAAACAATACAGTATTATTTATCTA  
TTGTCACCAAGCTGCAATATTAAATCCCCATAATGTATTTGTCTTATAACTGAAAGTTAGTATGCTGTGTCCAACATTA  
CCCCATTTCTACCATGTCAGATTCTGGCAACCACCTTCTACTCTCTGTTCTCTATGAGTTCAACTATGTTAGATTAC  
ACATATAAGCAAGATCATACAGCATCTGCTGTCTGTTTATTTTCTAGTTAGCATATGTCTCTCAGGTTTATC  
CATGTTTTCTCAAATGGCAGGATTTGTTTTCTTTTTACTGTTGAATAATTTCCATTGTATATACACCACAGTTTCTC  
TATTAATTCATTTGTCAATGGACACTTAGGTTGGTTCCATACCTTGGCTATTGTCAATAATGCTGCAATGAGACGACA  
AGTGACAGACATCTCTCAGCATGCTCTTTCATTTCTTTGGATATATACCCAAACATTAGAGTGCTGGATCATATGGT  
ATCTCTATTTTAAATTTTTTGGAGAACTTTCATCTGTTTTCCATAATGGAGTTACCAATTTACGTTTTTACCAGGAGT  
CTACAAGCGTTCCCAATTTCTCCACATAGTCACCAACACTTTTTATGACCATCTAATGGGTGTGAGAAGATACCGCATT

Fig. 6. 132



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GTGGTTTTGATGTACATTTCCCTGGTGATTAATGATGGTGAACACCATTTTATATACCTTTTGGCCATTTGTATGTACAT  
CTTTGGAGAAATGTCTATTCAAGTCCCTTGCCCTATTTTTAAAAATGGGTTATTGGAGTGTGCTATTGAGTTGTAGGAT  
TTTTTTGTGTATTTTGAACATATCAGGTACACTCAGCCCTTTGTATCTGTGGGTATGCATCAAGGGATTCAATTATCT  
GAGAATCAAAAATATTTGAAAAACATAATAAAACAATAAAAAATTAATAAAAGTAATATAGTATAATTATTTACATAG  
TGTTTACATAGTATTAGTATTATAAATAACATAGAGATGATTTAAAGTATGCAGGAGGATGTATGTAGGTTATATGCAA  
ATACTATGCTATTTTATATGCAGGACTTGAGCATCTGAAGATTTTGGTTTTCTGCAGAGGGTGGGAAAGGTTGAACCAAT  
CCCCATGGATACCAAGGTAAACTATGTATGGTTTGCAAATATTTCTATCATCCATATGTAGAAAATATTTCAATTTT  
GCTGATTGTTTCTTTGCTGTGCAAAAGCTTTAAGTCTGTAGTAGTCCCATTTATTTTTATTTTGTGCTACACTT  
TTGGTATCATATTAATAATAATACCAAGACCAGTGTCAAGAAGCTTTCCACCTGTTTTCTCCAGGAGTTTTGTGG  
TTTAATGTTTTAATTTCTTTTAAGCACATTTTGTATTGTATGTAAATAAATATGGATACAATTCATTCTTTTGCTATA  
TGAACATCCAGTTTTCCCGAGAACATTTATTGAAGAGACTATTATTTCCCATTTGTATATTATTCATGCCCTTGTCAA  
GACTAACTGATTATATATGCAGGGTTTATTTCTGGGATCTCTATTCTGTTCCATTGTTCTGTGTGTCTGTTTTATGCC  
AGTACCTCACTGTTTTGATTACTATAGCTTTGTAATATAGTTTGAATATAGGAGATGATGACGCTTCCAACCTTTGTTCTT  
CTTCTTCTTCTTTTTTTTTTTTTTTTTTTTTTTAGATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCATGATCT  
TGGCTCACTGCAACCTCTGCCTCCAGGTTCAAGCAATCTCTGCCTCAGCCTCTCTAGTAGCTGGGATTACAAGCACC  
TGCCACCAGCTTCGGCTAATTTTTGTATTTTAGTAGAGATAGGAATTTACCATTCTGGCCAGGCTGGCTTTGAACCTC  
TGACCTCATGATCCACCCACCTAGGCCCTCCCAAAGTGCTGGGATTACAGGCGTGAGTCACCACGCCAGCCATTCTTCT  
TTCTTAGGACTGCTTTGGGTATTAGGGTCTTTTTTGGTTTCATATGAATTTTACAATGGTTTTCTCTATTTCTGTGAA  
AAATCCATTGAAATTTTGATAAGGATTGCATTTAATATGTAGATCCCATATGGACATTTTACAATATGAAATCTTTC  
AATCCATAAATATGGGATATATTTTCAATTTCAATTAATGCTTTAAGTGTAGAGATCTTTCACCTCCTTGGGTAAATTC  
ATTCCTAAGTATTTTGTCTTTTAGATATTATTAATGGGATTGTTTTCTTAATTTATTTTACAGATAGTTTATTGTT  
AGTATATAGAAGTCAACTAGTTGCTGTATGTTGATTTTATATCTGTAAATTTGCTGAATTTTCTTAATTTATGAC  
AGTTTTTTAGTGAAGTCTTTAGAGTTTTTTTTTAAATATAGAAAATGTCATCTGCAAAATCTAATTTGGATGCCTTTTAT  
TTCTTTTTCTTGCCCTAATTGCTCTGGCTAGGGCTTTTCACTGTGTGKAACACAAATGGCAAGAGTAAGCATTCTTGT  
TTTGTTCAGATTTTAGAGAAGCAGCTTTCAGTTTTCCACCATTTAGTGTGATGTTAGCTGTGGGCTTCTCAAATATGG  
CGTTTTATTGCTTTGAGGTTTATTCTTCTATTCTTAATTTGTTGAGAGTTTTTGTGATGAAGGATGTTGGATTTTGT  
AAACACTGTTTTCTGCCTCTATGGAGATGATTATAGATCATATGATCTTTATCTTTCATTGTGTTCATTGGGTATATTAC  
ATTTTTTGATTGTTGTATATTGGATCATACTTGCAAATCTAGGATAAATCCACTTAATCATGGTGAATTATATTTTA  
ATGATTGTCAAATTCAGTTTGCTAGTATTTTGTTTAGGACTTTTGCATTTATGTTTACCAGGGATACTGCCCTGTAAAT  
TTTTTTCTTATAGGGTCTTATCTGATTCTGCTGTTGGTAATGCTGGCTCATAAAATGAATTTGGAAGTGTTCCTC  
TTCTCTTCACTTTTTTTGGAAGAGTTTGAGAAGCATTGTGTAATTTCTTAAATGCTTGCTACAATTCACCTTTGTTG  
CCACATGGTCTGTGCTTTTTCTTTGTTAGGAGTTTTTTTTTTTAAATTATGGATTCAATCTTCTTACTTGCTATTGGTCT  
GTTGAGGTTTATGTAATATATTTCCCTATCCCTTTGCTTTCAGCCTATGTGTATCTTAAAGGCTTAAGTGAATCTCTTA  
TTGTCCCAATATGAGACAGCATTTTTGTTGGATTTTTTTTAAATTCATTTCAGCCACTTTGTGTCTTTTGATTGAATAATTT  
AATCCATTTATATCCAAGATTATTATTTATAGGTAAGGAGTTATTACTGCCATTTAAAAAATGCTTTCTGTATGGGTTT  
GTGGTCTTGTGCTTTTTTTTGTGTTGCTGTCTTGTGATTTGTTGATATTTGTAGTGGTGTGCTTTGATTCTCTGTT  
GTCTTTCTGTGATTTAGAGTTTTTTTTTTTTTTTTTCTTTGTAATTAATTAATGAGGACTTTCAAAAACACTCTGTAGC  
ATCTTTTAATTAATATATTTTATTTTAAAGCTGTATGACAAGTTAATTTCAATCACATACAAAACTACACTTTTACTT  
TCCCCCGTCATTTTGTGCTACTGATGTGATGCTTTGTCATCTTTTGTATTGCATATCCATTAACAAATTAAGTGAACCTA  
TGGTTTATTTTTAATATTTTACCTTTTAACTTTTATTCTAAATTTAGAAATAATTTATACATCACCATTAACCATGC  
AAGTATACAGAATTAATATGTAATTTACCTTTTCCAGTGAGTTGTATACTTATATATGTAATTTATGTTGTTATTTAGC  
AGCTTTTCATTCCAACCTGAAGAATCACATTAGTATTTCTTATAAGGCAGGTCTTGTGGTAATGAACATCCTCAGTTTT  
TGTTGTCTGGGAATGTCTTTACCTCTCCATTTCTGAAGGCTAACTTTGCAGGGTACAGTATTCTTATTTGACAGGCTT  
TTTTCTTTCAATGTTTTGAATATATTAATCCATATTATTTATTTGTTATCCATGTAGGCTTGCATTGGTGTCTGTGAAT  
TTGAAGAAGCAAACAGTCTTTTCGGTCTTTACAGGCTGATTTTAAACAACCTTCTCTTCCACCAATGGCAGACCTGTTATT  
AGGTATGCAGATAGGCGTGGTTCCCTCTGGGTTTCTGGAGGACTCCCCCTGGCTCTCTGAGTATGTCTATGGGTAGGGA  
GAACCGTCCCCAGATCAACATGAGAGAGCTTGAACCTAAGTCACTGCTGCTTCAGGGTCCACATCTGAGAGGACTTGCC  
TCCAGGGAGTTGGATGGGCATACATCTCTGGGGACAGATTGACCTTGGGCCAAGTCTAAGTGGGAATGGAGCAAAGTT  
ATAGGGCCATCTCAGAATCTGCTGTGGAACCAAGTTTGGCAAGCCTGTCTCCGAGAACATGGATGGGAATGAGTCTGA  
CAGGTGCTAAGTGGAGACAGGACTGCTCTCAGGCCACAGTTTCAGTTTTAGGATATCATAGTTAGCAGACAGCTCTAT  
ACAAAACCTACTCTTATATCTCTGCCCATTTATGTTATCAATGTACATATTACAGCTTTTATATTTTGTCAATTTG  
TTAACATAGTTTTATATTTATATTTTATAATTAAGTCTATACCAGAGTTAAAAATAATTTATGCACCACCATTTGCAAT  
ATTATACGATTTTTATTTGTCTAAATATTTACCTTTTCTTTGTTGCTGTCTAGCATACTTTGTCTCAACTCAAAGG  
ACTCTTTTAGCAATCTTGTAAAGTCAAGTCTAGTGCTAAAGAACCTACCTTAGCCATTGTTTATCTTTATTTCTCTCC  
ATTTTCAAAATACAGTTTTTGCAGAAAGAGTATGCTTGGTTGACAGACTTTTTCTTTCAAGCACTTTGAATATATTGTCC  
CACTCCCTTCTGGCCTATAATGTTTCTCTGAGAAATCTGCTAATGTCAATGAAGGTCGCTTGCACATGATGAGCCATT  
TTCTCTTCTGCTTTTCAAGATTCCCTTTTGTCTTTGATATTTGACAGTTTGATTATAATTTATGTTGGTATGTTGGTT  
TTTTCCAGTTTTGAGTTTTTATCAGTGTCTTGAATTTTGGTTGTTGTTTCTTCTCAGATTGCGCAAGTATCTAGCCATT  
GTTTTTTTCAAATAAGCTTTCTGTCTTCTCTCTTCTATCATCTCTCTTCTCAGATTGCTGTTATGTTGGAAC  
ACTTGATGGTGTCCCATATGTTTCTTAGTCTTTCTTCACTTTTCTTCACTTCTTCTTTTTTCTCTTTGTATCTCTGGC

Fig. 6 133

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TTCATAATTTTAAAGTGGCCTCTCTTTGAGTTCATTTATTCTTTCTTGCTTGATGGAGTCATCTGTTGAAATGCTCTA  
GTGAACCTTTTCAACTCAATTACTGTATTTCATCTCCATGAATGTTGTTTTCTTTTGAAGT. TTGATATTCTCATTT  
TGTTCTCGCATCATTTTCTTAATTTTCAATTAGTTTTCTGTCTGTGCTCTCTCTAGCACATTGAACCTTCTTTAATATTA  
TTTTTAATTATTGCGCAAGTAACATAAAATTTTATTCTTTCTGGTTGGTACCTGGAGGTGTATTTTGTTCCCTTGGATT  
GTGTCATGTTTCCCTGTTTCTTTGTGTGCTAGTTATTTTTTTCTGGTGTGATTTGTGCATTTGAAAAGCAGCCACCTCTT  
CAGTCTTTATAAATTGGCTTCATACAGGGGAAGACTTTTACCAATTAGCCACATAGAGATTTGGGAGCCTCTCCAGT  
TTTGTTTTGTTTTTTTTTTTTTACCACGGGATACATCTTCTTTGAATTTGTGTGTGTTCTTTCCAGTTAGAGTGAT  
TTGCTTCTTTTTCTTCCAAGAGCTTTTAATCTCTCTCTCCGCTGTGGTGTCTGTCTGTACCAGTGCAGGTTCTGTGGCAT  
TGCAATAAGCCACTGAGTTACCTTTTGCTCTCTGCAGACCCAGGCATCCAAAGTATGTAGATTCCATTAGTGTCTGTA  
ATCAGGCAAGACAGAAACAGTCTCTCAGACAACACTCTGAAAAACCAGAACATTGGACATACATTCCACTCTTCTCTT  
TCTCTCTTAAGGGAGAGAGTCATAAGGTGTGATTTATTTTCTGATGACACCAAGCTGTGCTGGCTTGGAGGAAGGGCT  
GTCATGGTTGACGTGAAATGCCTTTTCTCATCTGTTTCAATGAGACTATTATTTTCTTTAAGTTTGCCTCAGGCACTGC  
AACTTCTTGACTGGTTTCTAGACTTTTCTATAAACTTTTGGATCATATATTATTGCTAAGTTGGCGTCTCTGGTGAG  
AATTAGCTCTCTCGCTGATGAACTCTACAGAATACTTTTACAG. ATTTAATATTGCTCTTATTTTCATCTCACAGTAC  
ATAGTCACTTTCTTAACACTTATATAATTGTTCTCTTCCAATAGCTAGTAGTGTCTCTGTAACACATATTGACACAT  
ACTAAGTTCTTATATAAGAAAATATTAAAGGGAATTTTGTATTTTTCTCACTAACTTCTGTGATTATTGTAAGGTAC  
CACACTTTTGGTTGTTATTGTGGCTTCATGGTAAATTTTATATGTATTAGAGCAAGACCGTAACCATGTTATATTTTA  
TAACATGGCCTAATTTCTCCAAAAGTAAATATAAACTAAAAAGAGATGATTTTCTTGAATAACATTAAACTTAG  
AAAATTATTCAAAGGAACATCAGTCTTGATTATATAAGTCTTGGAAAGTTGTATAGATTCTTAATCTAAGTTCTACT  
TATTTCTTCTGAGCTTATTTTAAACATTTTGGTTTTGTTGTTTTTATAAATGAGATGTTGGTGTGTAATTTTAACT  
AACTGGTCTTTGATTTTTATAAATAAAAGCCTTTTGCATATTTTACTTTAAACTGGACAAACTTACCTACTTTTA  
TTTTCAATTATTTTTCAGTTGATTTTTCTGGGTTTCTTACATTAACTAGGTTGTAATCAAATAAGGATAAAAGTTGCTT  
TCACTTTTCTTATAGTTTTATGCCTCCTATTCTATTCTCACATTGGGTTACTGAATTTGTTAGAGGTTTTTGA AAAA  
TGGGGCAATGTTACATTGGGCTAAAACATGAACATTGATATCAGCTAAACCTGGTCTCAAACTCTGAAGGATCCT  
CAGTTAGAAGTGAAGGCTTAAAGACGAGGTGGCTAGAGGGAGGTCTGCACACACATTGCCATGAGTCTCAGACCA  
CATGAGACATTCTTTTTGTCTGAAGCAAGGCTGGAGCCAGGCCTAGATGGCCTGTGGAAGCTCCCATGGAACAGCC  
TGCTGTTCTCATTCCAGGCAAACTAACCTCTGTACAGTTGATAGTGTCTACTATGGACAACTAACCTGTTAAGCTTCA  
TTTCCAAATCTGTATCATGGGAATAGTAACAGTTTTTGTACAGTTTTTATAAGAATCAAGTAGCTACCTATACAAAT  
ATGTAATACAATAAATATTACTAAGTTTCTATTATTATCCTGATCTTAAGCATGAACCTATGCTTTACCAGTAGCTATA  
ATGTTAAATATAAGTTAATATAAACATTCTTTTGATCCATAGTTTGTATTATCAAGGGGATATTTGTAGTTATCTGAA  
TATCAAAGCCAAAAGCAAAGCAACATTCTGGCTCTCTGCATGTGGAAGGGAACCTAGCTTTACTTTGTCTCCCTTT  
CCTCCACAGCCCAATATTTGTTAGTTTATTCTAGATTACATACCCAGTTTATCATTATAAATATATCATCACTTAAA  
TGATGGTTTTAGGTTTTCTTTCATGTTTATACATAGTTTGTGATTGGTATTGTTTAAATAAACTTGAAGATGA  
AGACAATAGATCCTTTGTATTTCTTTAAGGTTGTGATTGACCCCTGGTTCTCAAGTGAGAACTTTTCAAAACACT  
TGAGAGAGTAAACTGGCTGAGTTTACCTATACTTACTGTAAGACATAATTTTAGCTGCTAAATAAAACAAATGTTAGTT  
TCTTTTCTACACTTGGGATTCTATTACTGTATGTAAGTGAAGGAAATAATTGACAGAACCTCATGTTTTCTCTTATTT  
TTTTCTCTCTACTAACAAAATAGAATTGACTTTATTTTTTAAAGTCAGCCAGGAAATGTACAATGCTATTATACAA  
AAGGTTAATTGAATCCTAGAGTTGCAGATCGAGTTTCTTGTGATGAGAATATACAGTAGAATATTACTGAATGAGAGA  
TTTTCTATTCTCTTTTTTGGAACTTTTTGGAAGTTTTGATGACTGAGTTATAGGAATTTGGCTTTAGAAGGACTTCAG  
TGATTTCTGTCTCTCTAATCAGTATGAAATCACAGCCTATATTGGATTATGCTCTGTGAATGTTTGAACCTATCTG  
TTATCTTTGTGTTAACTGAGGTAGAAATTTTCATTTTATATAGAATTAGTTTTGCAAGAGTATCTTTCTATATACA  
AATATCCATTGAAAATTGATGTGTGTTAAGTCGATACAATGCCCTTTCTATATTAAAGGACAGGATGTTTATTGCTT  
GACTTGTTTGTTTCTGTAAAGTTATTTGGGCAATAATAGCATTAGTTTAAAGATAAAACATACATAATAAGTAATGA  
GACAAGAGGAAAAACATTTGGCATAAGGCTTAGAGAAATTTAAGGCTCATTTCATTATTGCTTTAGTGCATTATTAA  
CAATTTTCATGGGGACATGAAAGACTAATATATGGAGAAATGTCTGCTATTGGCATATAATATGTTAAGATTGCAATA  
TGACTTTTAACTCACTGTGATAATAGCCTATTAAATTGTATCCTAGTCTTGAAGAGTCACTAACATTATCTTGTTTAT  
ACTACAAAATTAGGTACAGGGAACCTTTACTTTACAGAACTTAATGTTGTCATCAAACTAACTGGACAGGAAAAAAG  
GAATGTGGCATTGGAAGTGATAAAACAAAACACATCCTCTGCCTATGACTGTCTTCTTCTGGACCTATCTGACTATTT  
AACATGCTGACCTTTTACATGCTCTGCATAGTGTAGGCTCACTGAAAGCACTGAGTGTCTGAAATCCTTTCATTCTATT  
TAAACAAAATAGGTGAAAATACTTAATCATGATGTCTATATTTGAAAGAATATTGAAACATGGGGAGAGACCCAAAC  
CAGTTTGAGTGGCTGAAGTTTGGAAATTTTATAGAAATCCCTATTATGTGTTTCACTTTATGCTGACTTATAATA  
ATAGTTACAAATACATATTGCTAGTAACACCAATATCTAATACCATTTCCTTTTCTTAATTCTTGCAGTTGAAGAA  
ATGGAGATGAGTATGCTATATGCTTCACTCTTTCTCAGCAAGATTTATTTAGCATATGTTTGTTCAGGCACTGGC  
TAAGTGCTAGGGGTACAAAAGTTGTTTTGTCTCCCTTCTTCCAGATGTGTCATGTTCCAGGCTAACAGAGTGAGTA  
GTCACACAGGCAATCATTCTCTACAGTTGTGAGGCTGAAGGCTGACTTGGTGTGATATAAATAAAAGGCAGAGATAT  
TTGTATTCAATTGCTTGGATGATTTTTCACTTGAGTAGGCAGATTGAAAAGAAAAATGCGGCGGTGCAGGTGGCT  
ACACCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGTGATCCTGAGGTCAAGAGTTTGAAGACAGCCTGGGCAAC  
ATGATGAAACTCCGTCTCTACTAAAAATACAAAAATTAGCTGGGTGTGGTGGCAGGTGCTGTAATCCAGCTACTTG  
GGAGGCTGAGGCAGAAAGTCACTTGAACTTGAAGGCGAGGGTTGCACTGAGCTGAGATCATGCCATTGCAATCCAGC  
CTGGGCAACAAGAGCAAACTCCATCTCAAAAAAAGAAAGAAAGAAAGAAAGAAAGAAATGTTGAAG

Fig. 6: 134

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GATAGCAGCTTGGACAATGCCTAGGTTTTAAAGACAGTTAATTGAGGAGCCAGCAATGAGACTAAATGAAAATGACTGG  
AGAAGCAGATAGACAGAAAGCAAAAATAAATGTCCAATTTATGGGGTGATCTACATCTTTTTTGTCTGCAACAGTCCA  
GGTGTCTCTTTTTTGTGCGATGTCACAACTGGCTAGCACTTTCTTTCAACTTGCAAAAGTGTTATGTACTCCAGTAAACC  
CTAAGTTCTCTGTTACAGCTTTTGATCATATACTGGTGATTATCTGTCTATTATATTTTTTCCCTCAAATGAAGTGTAAAGTG  
CTTAAGCAAAAGGAGGTGCCTAATTCATCTCTGCATTTTTCAGTACCCGACACAAGCATCAAAGGTAGTAGGTGCTCAAT  
AAATGATTAATTGGGAAATTAATAGGAATGGAAACACAATTAAGATAGGTTGAACTCCTTTAGAGATATACACATAAAA  
TAGTACTACCTGTAACAAGAAAATGCTAAATTTTTGTGGATTACCCCAACAGAAGATTATCTGTGGCTCGTGTACCCCA  
AATTAAGTGTCTTCTGATTGGCAAGTGTCTCTCATGTAAATAATGATTAAGAAACCATGGCTTCTTCCATCTTGTGACTC  
TACCATCTTCAACACATGGTGAGGGGCTACAGAGGGGAAGAGAAATAGGGGGTGTACTCACAAAATTTTTATGTGGCA  
GGCTGAAAGTGGCACATACACAGACCCATACACATTTCTTAACTTATAATCAATGAGCATGTAATGTAACACTCACT  
GACATCTCTATAGCTACCTGTAAGGGAGTCTGGAGATGTGGTCTCACTGCATGCCAAGAAAGAAACATTTTCTGCA  
ATGCCCTATATATATGTATATATAAATATATATATGTATATCATGTGTTACATATGTATGTATATATATATATGTGTATA  
CATATACTGTATGTGTATATGTATATATACACACACACACATCTTAAGGGGATTTTCTTATAGAAATTTTATTTTC  
TCCCCCTCTCTATATATATATGAAATAAATATCAGAGACTGTGAGATTATTAAGAACCACAGAAATTTATTTAACCCCT  
AGTAATGTGCATGCCGTGTGTTTTAAAGGCCATTAAAGTAGTTTATTGTCTACTTTTGAAAGAAAAAAATTAACCAAAGA  
AATTAATTAATATCTTGGATAAAAACTGAAACAAACAAAAAGGAAAAATAATAATAAAATTTAACATTTCATCCATTG  
TAAGTGTCAATTATTATGGAATTGCTTACTTTAGGCGATGATTTTCAGAAAGAATTTTATGCAGTAAAAAGCATAACATT  
AAAGTTATTTGTCTGTCAATTATTCATATAAGTTGGCTAAATTTTGAATATAATTTTATTACTACAAGGTAGCAGG  
TTGATATATAGTTATTTCAATATGTGAGCATTTCTTTTATTTTGATATGTCATATCTTGAAGCCGAATATATTTCTAA  
GTCCCATCAATAGCAAGGTGAATGTTGTATCATTTTATTATATGACTTTTATTATACTTTTAAAATGAAAAACAAGA  
CATCTTTATTATAGGAATACAGAAGCTCATAATTAATAAGATACTAAAAACAAATTTATACCAATATTGCACAGGAG  
AGCCATTTTAGAGATTAGGATACATCCTTAAACAATGTTTTATGAATATAATATGTGACTTTTTTGTGTTTTGTTGA  
TATTATTGTTTTATAAAAATGGGAGCACTCTATAATCTGTTCTTCCACTCAACATTGTGTCTAATACATGATTACGTA  
TTCTTCTACATTTATTTAACAGCCTCATAGTATTTTCATCATATGATGTATCAACATTTACTAAGCCATCCTTCAGTAC  
AGCAATTAGATTACATCCAGTTATTTGCTATTATAAATGAGCTGCAGTGAACATCTTTGTGCTGATATTGTCGCAAC  
AGTTTTATTAACCTATGTCTAAAATGTCAAACCATTAAGTTCTCAAACCTTAATATGCACTGGAATGATAGTGGTGACT  
TATTCAGACTCATAAGCCCTACTCATAGAGATTGTGTTTAGGAAGATCTGGAATAAGACCCGGGAGTCTGAATTTTAGC  
AAGCACCATCTATGATTCTAATGCAGAGGGTTTGAATGTCAATTTTGAGAAATAATGACTTGGAGACATTAGAAATAC  
TATCTTTTTTCCATCTTCTCCCTGCCATAATGCCATTTTCTAACAATAACATAAGATACCTATTGCTCTGGTGATTAGT  
TTTACATCTCTCTCCAAAATAAAGGCATTTAACCTCTTACCTTCTACCTGATAAGGTTGTTCTTTTTATTCTGAACCA  
TAACTGATACACATTGATCTAGAGTGTGAAAAAGCCTCTTATACTGTTTTGGAATGGAAAAATGTTAGAAATAGCCCT  
CTAGTGCTTTTATCATTTTATTGTAAAGATAAAAGTATTATAGAAAGTGGGTTTAACTAACAGGATATAAGCATGAG  
TGTAACCTTCACTTTTATAGTAGAGATAATTATCTCAAAGAGTTACGTCTTGAGGCAAGTTTTATCTAAAAAAGAAATGTCA  
AAAAACATTAAGTCATTCAACAGATAACCTCAGTTATATAAAGCATTTTTGCAATTGCAATGCTAACACCCAGAGTAGGC  
AGCTAAATGCTTATAAAAAGATGTAACTTTGGCCAGCTATATTTAGTGCTACTGAAGCTTTGCTAGACTCATCCTTTG  
TTCTTCTTTTCTATGTTTCATCCAGAGAAGAGTATTTACACATGTATTAGTCAGGGTTCTCTAGAGGGACAGAATAAT  
AGGATACATGTATATGTGAAAGGGAGTTTGTTAAGGAGTATTGACTCACACGATCACAAAGGTGAAGTCCCACAATAGGC  
GGTCTGTAAGCTGAGGAGCAAGGAAGCCAATTCGAGTCCCAAACTTCAAAGTAAGTAAAGTGGCAGTGCAAGGATCC  
AAAAACCCATCACTCTGTAGAAAGCATGTTGTAACATTGTGATGATTCTATAATTCTCATCACTCAAAGTAGGAAAGC  
TGTTTTAGCTCTGTGGCTCAAGGCCAAGAGTCCCTGAAAAACCACTGTGTAGGTCCAAAGAGTCCACCTGTTTAAGAA  
CAGGAGTCTGATGATCGAGAGCAGGAAACATCCAGCACAGAAGAAAGATGCAGGCCAGAAGACTCCGGCATTCCAGTCC  
TTCCATGTTTTCTGCTGCTTTTAAACCCAGCTGTGCTGCAGCTGATTAGATGGTGCCTACCCACATGGAGGGTGGGT  
CTGACTCTCCCTGTACACTGACTGAAATGTTAATCTTCTTTGGTAACCCCTCACAGACACACCCAGGAACAATACTTT  
GTATCCTTCAATCCAATCAAGTTGACACTCAGTATTAACCATCACACACATAAGTCATTAACCTTAATCATGACCTGTT  
TCCAATCCAGGAATGAAGTTCTGTTCTTAGAGGAACCTCCTAAGTACATAAGTACACAGAGGCTCACTTTCCCAATCTA  
AAAGCTAAGACTGTTCAGGTGCATATGCTTTCTGTTTTTTTCTATATTGTTATCTCACAGAAACATTGATTTGCCAT  
TGTTTCTTGCAAAATCAGTATTTTATAACTGGAGGTGGTGTAAAGGTTATTTTGTATAACCTTTTGATTTTATCCCTA  
TGGAGACTAAAGACCAGCAAGGTTAAGACCAGCAGATCTGGAACAGGTTATTATAGAAATTTGTATATTATGTTGTTGC  
TAGCAAATGGAATTATTGCAAGGAGATGATGGAAGAGATAGTATTTCTGATATCTCAAGCCATTGTTTTTCAAATGT  
GTTGTTCAAACCTCCGCATTGGGATCAGAGGTGGTGCATACTAAAATTCAGACTCCAGGTCTTATCCAGATCTGCT  
GGTCTTAGCCTTGCTTGTCTTTAGTCTCTGCAGACAAAAATCAAGACATTATACAAAATAAACCTTAAGACCCCTTCC  
AGTTATGAAGTACTCTGATTTTGTAAACAACCAATGGCACCTCTTAAGACCCTGAGTAATTACTGGCAGAGCAGGGGA  
TAAAATTTCTCTCTCATTTAATGACAGATTGTCATTCATTTCTAATGTTTTATGTAGGGCTGCTCTCATCTCAGTCTC  
TGTTTAAATTTTCAAATGAAAATGTGAAGCTTATTGAGTTATGATCAATAGTGTGTGTTCTGTTATTTTCTACTAATA  
CTCACTCTGCCAGTGACTATACTTGTAAAGGTAGTGACAGATGGTGGCTTTAGCTCCAGTTTTAAC TAGAAGAGATTT  
GGGTTTGGATCCTGACATGTAGGGTGATCAATCATCTGGTTTCTTGGGACTGTGGGGTTTCCCTGGACATAGGACTT  
TGAGTGCTAAAATCAAAGGTCCAGGCCAAGTAAGATGATTAAATCAACCCACTAGCCATGTGGCTCTGTCTATGATAGG  
TCTCTGGGTTTTTAAATGGGTAATAATGGAAAAGCAAGAAAGTAACCTCATAGGATTTTAGTAAAAATTAATGAGAC  
AGTATATGTAAACACGGCACTACTTAATAAAGACTCAGTAAGTATTAGTCATTATTATTGATGTTTTATAAAGCAAGT  
AGATTCCTCAAAGCACAGATTCTCAGAATTTAGGATTTGAAATAAATGAACCTTCTTTTAGCTTTGACCTCTTTTTTT

Fig. 6. 135

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TTGTTTGTTTTTTAAATCTTCTCAGTACCCCTTCTGTCTGTCTGTCTATACAACCTGGACAATACAACCAAGGTTGGATA  
GAGTCCACCATCTCACATCCTTTTACCTTTTTCAGATATAAATCAGGAAGACAAAAATTTTCTATTTGGGAATCAAT  
GTGAAGAGTGAGCATCAAAGACAGCATAGAGCTATGGAGAAAGGGGAAATTAGCCTGGATTATAATAACAGCTGCCATT  
TTGTTGAGTGCAAACCTTTGCCAGATATTGGTGCTTCAAATACTTTATATATTTGGTCCACACAATGACTCCGAGAGG  
TAAATATTATTATCTCAGTCTTCAGATGGAGAAACAACCTCAATGAGCCTAAGTGACTTGCCCAAGATAGTTGTATAG  
TAAGGAGTGTAATAAATGAGGTCTGGATGTTCCAAGCTCGATGAATGTCCAACCTTTCAGCCAGCTGGTTAATTTTGAGA  
AATATAAACTTCTTCACCTGTAAAACCTCAGAAGGGAAGGAAATTGCCATATATGAGTGCTAATCCCAATGCAAGTAATG  
AACTATGCACATCATATGCATGATCTCATTTAATTCTTGTATGTAAATATATAGTCCCATTTTTATAATAAAGAAACAGA  
AGCCTTAGAGAGACTAAGCAACACACTATCAATACAAATAGTAAAGTGGCAGTGCAAAGATTCAAAAACCCCAACTCT  
ATAGAAGCATGTTATAACATTTGGTGATTCTATAATTCTCAGTATGTGGATATAATAAATATTGCTAGAGTAGACTTTT  
CAGCCATTTGGAAATAATTATTGCTCATGTGATAGTATATTTTCTCAACTAGAATCAAAATATTAACCTTTTGACCTGG  
GTTTCAAGTTTTCATGTGGATAACATGGATCAAATTTGCAAAATCTGCTGAGCTGTGACTTAAATACAGTTCTACTGGG  
TCCTCAAGTTTCTTTTAAAGTCTTTTCTTACTACCTCTCAGTCTTATAAAAAATTGCAAGAGTATATCTGAGTA  
AATGTGACATATGAAAACATATGTTTCAAATATAGGCTTAAATATGCAGAAAAAATAGGACTTTTCTTCTCTCTCTT  
ATGGGCATGCATGTAAGAAAGATATATATAAATATACAGTATGCTATATAACATTTTAGTCAACTTAGGACCATAC  
ATACCATGGTGGCCATAAGATTATAATACTGTATTTTACTGTATCTTTCCTATGTTTAGATATACTTAGATACACAAA  
TATTTCCCATTGTGTTATAAATGCTTACAGTATTTATTACAGTAACAATGTACCATCTAGGTTTGTTTAAATACACTGT  
GATGTTACACACAAGGAAATTTCTAATGATGCATTTCTCAGAATGGATCATTATCAAGTGATGCATAACTGTATGTGTG  
TGTTGTATATATATATATATATATATATATATATGACACATGCATATGTCAATGTATATATTTAATGATGTTTGCAT  
TCATTTCAAGATTATAAAACATTTTGGATTATCCTTGATTTTATAGAATTCACACACAAAGCTAATAAATTCTAA  
GATTACTGAAGATGTTAGTTAACTGTTTTTAAACCAAGCCAGCTGGTGAACAAATTTGCTATTTTAAAAATAAATTTAG  
ATTTTAGTTAATCAAATATTGTTTCACTGTTTCTTGTATAGCATTTTTCATGTATACATTTTACTTAATT  
TCTTTCCAGGAAAGTATTAAGCCATTATGTAATGATAAACAGTGTGATTTTGTGATTATATGTACTTTCTTGAATT  
ATTACCTCAGGCCTCTGAGGAAACACTACATTCAGTAATGAAGAGGAAGACCTTTCCGCGGAATGGAACCTTATCTT  
GTCCGAGACTTTCTATGTCGCAATATTCAGCTTCCCCCTCTCGCTTCAGACAGTTGGAACAAGCTGACTTGAAAGTG  
AATCAGAGAACATTCACGACCAACAGCCTCCCCCTGAAGATTCTGCCGCTGATTGCTATCACTTCTGCAGAATCCAG  
TGGGTGAGTCCCTCAGATGTCATTTCCCATTTTATATTTTAGATGGTGATTGTTGTCTGTGCTTTTGTGATTTTGT  
TGGCTCATGCTTGATTGAGTGGGAGAACAATGGGGTTTCTAGAGTCAAAAAAAGGATGAATTTCTCAGGTGACA  
TTTCTATATCTGCAGGAGAAGACATTTTAGTGAAATGTTTACATGGAAGAGCTGAAATGTATTGGTGAATGCTAAT  
AAACATTTGCCAAAGGCGAGTTGTACTTGGAAAATTAATATTGGCCATATGTGACTTGATAGAAGACATTTTAAACAAAT  
GAGAATAATGGACAAATTACCATGTAGTGATACATGTCTAGAAACAATAGGAAATGTTCACTGATGCAAAATGAATTT  
GGAATCAAGAATAAATGTATTGTAATTAGAATCAAAAGAAATATGCAATGGTATTTCATGAGTCTAAAAATTTGCTT  
TGACATTTTGGGTATTGCTTACCAGAATACTATTTCACTCCAGTATAAGGTGATTTTATTTAGCATTAGTACTTAT  
AGAGGAGTCAGCCACAGCCACGCTCCATCATGTAACATTTTATTTCTACTTTGTCAGGGTATAATTTTGTGTTTAT  
TCTTTTTCGTGTTGTTTACCAATGGAGTTTTACACTTTTAAAGCAATGTCAACAGTTTAAAAATTTGTGAAGAAAGTAAG  
GATATTGGGCACATCAATTATTTGTTCTTGTGACAGCTGCATTTTAAAGAGCCTGGATAGAAAGGAAAGAGGATGAA  
GCCAGTGGGCCATACATAGATAGACTCTTGAACATTTGCTAAAACCTACAAGAACAAAACAATTACTATGCTACAAATGT  
GATGGTCCCACATTTCTCTGCCAAGTTAAAGGCATCTCTGGGGAATGTCTTTTGGATCTTGTAAAGTTAGGAAGGTT  
GTGCTCAGAGGAAATTTGGCTAGTAACTCAACTCAAAGATACTGAATTTAGCTGTTTTACTTGTATTGACCAGTCTAA  
GGGACCTGTGTTAGAAAAAGGTATGAGGAAATACTACTAGATAAATAAAGAAAAACAAATATTACCTTGAAGCAAT  
GAAAAGAGGAAATATATTTTGTCTGTTGTTGAATTGAACATGTGTTTAAAGAAAGATGCACACACATTGATCAGA  
CTCATACTAAAGCAGATGGGAATTTTATATGACAGCTTGACCTGAACATTTTGTAAAAATGCTGTTCCCTGAAACTA  
TTTCTCCTTTCTTTGGAATAACATTGCTGCCGTTTCTGTTGATAGAAGAGATTACAGATATCAGGTGTATCCAGGG  
ATCCCAAGATCACCTCGGGTCAATGATTGCTAGCAGAGCTCTCATAATTCAGCAAATAGTCATATTCATGGCTCTG  
ATGTGTTATAGCAAAAGGATTCAATGCAAAATAAGCAAAGGGAAGGTAGATGGAACAAATCTGGAGGAAACCAACA  
TAAGCTTCCAAGAGTCCCCAAGTGAAGTAAGACAAGATACCTTAATTCCTCCAGTAATGAGTTGAGACAACACTTGTG  
AAATGTGTTCCACAGGGATGCCTTTACCAGGGAAGCCTATTAAAGACTCAGTACCTAGAGTTTTTACTGGAGGCCAGTC  
ACTTAGGTACCCTCTGCCTAGGATATACAACCTTCCAGATTTCCAGAAGGAAAGTGATATGCAGCATAAACACATTA  
TTTGCACAGACAGTTTAGGCAAAATTGAGCCAGTCTTACCATTTAGAGAATGGTGGATCACTCCTGAAAGTCAGGTCTGC  
TAAAGGCCAATGTTTCAAACAGGTCTTCTATATTTAATTGACACAGTCTCTGATTAACTGTTTACTACACACAGGTTA  
TCTTAGAATAGTTATCTTACTTTCTTACACTTGTGGAAGAAGAGATTATAATTAATAAATTAATAATGCACTAATTTAAAG  
CCCTGATATATTCAATTAGCTTTGGTATCTCAAAAATTTTGGTTGCTAACCATGATTTCTCATTTTGTGAGTTGGTGTAT  
ATCATGTGCCCTTAAATAAATGATGCAATATACCTAATATATCTCTATGTAGTTGGATATTGTGTGTAATCTAAAAAT  
CTTGAGCTGGGCGCAGTGGCTCATGCCGTGAATCCCAGCACTTTGGGAGGCCGAGGCAGGGATTGATTGACCTCATGAA  
TTTGAGGCAAGCCTGGGCAACATGGCAAGACCTTGTCTCTATCAAAAACACAAATAAATACTGGGTGTAGTGGCATGC  
GCCTGTGGTCCCAGCTACTCAGCAGGCTGATGCAGGAGGATCGCTTCAGCCTGCTTGAAGGCAGAGGTTGCAGTGAGTC  
AAGATCCTGCCACTGCACCCTGGCCTGGGTGTGAGAGAGAGAATGTATTGCTAAAAACAGTTTCCAAGTGCCAAGGAAC  
TTCAAGGTTTCCGAATTGTCTATGTCCCAGCATTTCTGTTGATTACATTTCATTTCCATCTTCATTAAGATTAAAGATC  
AAGTACAATTGACCCCTGAACAATACAGGTTTGAAGTGCACAGGTTCTTTATATGAGGATTCTTTTCAACCAACACA  
AATGAAAAATATAGTATCTCTGGGATGTGAAACTCATGTATACAGATGGGCTGACTTTTCATATATGTGGGTTCCACAG

Fig. 6. 136

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GGCCAATTGCAAGAATTGAGTATGCATGAATTTTGGTACATGTGGTAGACCCGAAACCAATCCCCTACATATACCAAGG  
AATGACTATGTAAGCAATGTCATGCTTACTATTTACAAATTTATCCAATATTATGAAGAAAATATTTTTCTTTTGA  
AGATGGAACAAGGGTTTCATTTCAAAGAAACAATAGACAATAATGGCCAATCAACAAGAACCAACTAAGTAGATATT  
AAAGGTATTGTTATTACATTTGGAAGCCAGAACAAATTTGCGAATTGAATATTGAGGACTAGAAAATTCAGGAGTATAAC  
TTTCTGGAATGTCGAAGCTTTGGAGGAGAAAGTAGAAGGTAAAGTGCAGGGCCAGGTGCAGTGGCTCACGCCCTGTATCC  
CAGCACTTTGGGAGGCTGAGGCGGGCAGATCACAAGGTGAGGAGATCAAGACCATCCTGGCTAACACGGTGAACCCAG  
TCTGTACGAAAAATACAAAAAAATTAGCCGGGCTTGGCAGTGTGTGCCTGCAGTCCCAGCTACTCAGGAGGCTGAGG  
CAAGAGGATGGCGTGAACCCGGGAGGCAGAGGTTGCAGTGAGCCGAGATTACGCCACTGCCTCCAGCCTGGGCGACAG  
AGTGAGACTCTGTCTCAAATAAAAAACAAAAACAAAAACAAAAACGAAAGGTGAAGTTCCGGGCTTATATTCTGT  
GCCATTTTAGTTAACCAGGAGCCCCAGATTCTTTACAGCTGTGCAGAAAGAGCTAATGGGAAATTTAGCCTATTTTAAC  
TGAGTTGTCTCCAGCCCATTCCTCATTATTAAGGTTAGTATGCCTTTAAGTCCCATTGCCAACCTATACTGAGACCA  
TACCTTAGCAATTGCAATCTTTGATGGTCAAGGCGACTTTTCATGCCCTCCAGATTTATTTCTTTCTTTCTTAACA  
TCATAGCCTTTTGTCTTTCTTCTGGCATATCAGTATGCCAGATACTTTCTTTGTCAAGTGTGAGGAGTGGTCTAGA  
GACTTGTACCACCCCTTTAGAAAGCCACAGTATGGCCCTGAGAATCATTAGTTTCTGAAAAAGAACTTTGATGTGCAGA  
AATAAGTGTCTAGATGACAGCTATTAGCTTCCTCATGAAGTACTTGGGTCAAGAGACTGAGTTCAAAAGGACTTTTAG  
TTATTACACTTCCATATTTCTACTTTTGACTTTTTCCTCAAGCAATGCGAATGTGTTCAAATGTACATTTTAAACA  
TTTCTTTTGGTATGCCCAAAGTGTAGGTTGTGTGTATGTGTGATTAGCAAACCTTAAGAACTGTAAATGAACAGA  
AAACAGAATTATTAAGACCTGGGATGCCTATAACCTGAATTCATCTGCCAGTTAACTTTCTGTACAGGGTAGGCGAAT  
TCAGGCTTCATGGCTGTTTACTGACCTTCCTCGAAGTAAGAGAGACAGCTATTAATGACTTGAATGTTATGAACGTGG  
CATAGAAGTAATTTGAAAAGTCAGTTTTTCATATTTCTCTAAATAATTTTCTATTACCTTTCATAAAATCTTTTAA  
TTAAGGTATAATTTACATGCATTATACATCTTGAATTAATATGATTTTATACTGTATGTAATCACCATCCTATTTCTC  
AACTGATCACTAAAGGTTATTTTGCCTCCTCTTGGACTTCATATAATGGAATTGTACTGTATGTAATGTTGTGTCTG  
GCTTCTATTAGTCAAAATTTTGTGATATCCATGTTTGTGTATATCTCAGCAGCTTGTTTTATTGTCATAAATATAG  
CATAATGATTTTATTCTTCTTACTCTTCTAATGAACCTTTGGGTTGTTTCTAGTTTGGAGGGGATTATGAATGAAGCTGC  
TATGTACACTTATACCAGTCTTTTGTGAATATATGCACTATTTCTTTTGGGTATATTTCCAGGAGTAGCATTTCTGA  
GTCATAAGGAGGCAAAATATTTATTTTCACTGCCCCAACAGTTTTCTAAAGTGTGTACTCTTTACCCTCCCACCAG  
CAATACGTAGTAGGTACAGTTGTTCTACATTTCTACCAACACTTAGTATTTTCAAGTCTTTTCAATTTTGGTCACTCTGG  
TGAATGTGTAGTGGTATACTACTGTGGTTTTAATTTACATTTCCCCGATGAGTAGGAATATTGCTTACCTTTTGTGTG  
TTTATTGAACATTTGGATATCTTCTTGTGTATGACCATTTGAGACATTTGTTCAAGTTTATTTTACTTATTGATTTCT  
TGAGGGCTCTTTGTATATTCTAGACATGATTTTGTGTAGACATGTGATTATAAAGTGAATTTTGTGTTTAAACAG  
TGCTTGAATTTTACTTTTATGTTTACTTTGAATATGTTGGTAATCCTAGGGACCTGTGAAATATGAGGGAAGTGTGCA  
GCAGGGAGAGGAACTGTAAAGCAAGAGTGGACCCACCTTAATAAGGGGAAAACAAGAATGACATTTAACTTCGAGAG  
CAATTTCACTTGGAGACAAGGACAGCTGGTCCCTTGAATATTGGATGGTGGCAAATAAGACATCCAAGCACTAAGAGGG  
CAGGCAGAGAAGAGTTGAGAATGAAGCAACAGCATGCTTATGGTGGCTGATGGCCGGGTAGTGAGTAGACAAGAGTGGG  
GCTCTGGACATAGATGGTCTGAATTTGAGTCTGTCTCCACCTACTACCATCTTGTGAAGGTACTTAACCACTCCAAG  
TTCCTAATTTTAAAAAGCAAAAGTAGGAATAATGCGAGCACTACTTCATGGGTTTGTCTAATGGTATACTACCTAT  
CCCAGTTTTTACATATTGTGAATCTTAATATATAACATCAAAAACCTGCAACTCCTATGCTGGGAAATATTAAACAA  
AATAATGTTTGTGTTGTTAATATTTGTTTACTTATTGGAATTGGCTTCAGAGATACTCTACAAATAACTCTTGGGGTA  
GAGATGGATGTTCTAGCAGATTTGGGAGTCAATCAGAAATTGGCTCCTGTTTCAGAAAGTTACAGTTATTATGGACTTG  
TGACATTTCTGTTTCAAGTCTGTATCTGGCATCTTCCGCACACATGCTTGTCTTTCAAGTGTGTTCAAGTTATGTTT  
GGAATGAGAATGGTGGTCTCCCTACTTCTGCTTCACTTCTTCCACAACCTTGCTGACTTCTAAATAGTTTCTGCTTAG  
AATCCTTAGGAGGAATTAGGATCTCCTTTCAGCCCTATCTTGGGCACTGACTTACATTTCCACATGTGGTCCATGTGCC  
CCTAGACAATCTAAGGAGAGTCTAGCTTGCACACATGTGGAATCATTTCCAGTTTCACAGGTGGGAAGTTATGGGAAT  
GAAGAAAATGTGGGGGAGGTAGCAATAAACTCTCTACTTACATTTTATTGCTGCTGCTATATAATAAATGAGAGCC  
AAGAGCAACTTATCCCTTGTGACATGATGACACACCTCTGGATAGATGTATATTAGGGATATGGGTGGGTGGAGAAT  
GTTACAAACACTTTCTCATCCCTAGTATCCTATTACCTGTCTGAAGAAGTACACTGTGTACCTTCGTATCACTATGTCC  
TATAAAAAAGAAAATGAAAAGAATGTAAAAGAAGACATGGTCACTTTTGGGGATAAAATTTAACTACCCAACAGAGAGA  
GAAGAATTACTTTATTCATATAAGGGTTCATTTTACAAGGATCTTCCAGAAATATTTCCTTGATTTGTGTGCTATTAC  
AGAGGGACTGGTCACAGATGCCAGTTAGACATTGGATTCTTTGACTAACCACTCTTCATCTTGTGCTCTTGTAGTACAA  
CAGTACGTTAGAGAGAACATTAAAAAAAGATTGTTTTTCAGTAATTTATTCCTGAATCAAAATCCAAACAGAAAATAAA  
AAAGGAAAACAGAGGCTGGATCAGACACATCTGATCTTTCAAATTTGGCCTTTTAACTTAAGAAGGTATTAATGGG  
CATTTCAATTTTAAATAATTTGGATATAAGGGTGTTTATAAGCTAGAGATTGTATTTACAGTCTACCATGAAGCCT  
GTACCTTCATGTTTGTATGTTTCAAGCTTTAAGTGATTTATCTAAGTCTTATTGAAATGTTATATGGAAGATCTATA  
ACCCACTAGGCAAAGCTTCCCAAAATGAAAATAAAACACATAATCATGATTGTGAAACATTCTGTAGAAATATAGTAT  
TCTTGAGCTAGATGAAATTTTAAAGTAATCAATGCCAAAAATGGGAAACAATACTTCCAATAATCTTGAAGATGCAT  
ACTAAGCAGACAAAATTTGGATTCTTTTGGTTTTGATTGATTACATGCAATTTATGATTGTAGTGTTTATCTAACTTC  
TCAGGATACACTACAAAATATCACAAGCCTTTTATTTTAAAGCATTTCTGATTTAATCTTATCTGTCTTTGCTTTAA  
CTTTGTAAATTTGATTATTTTTTGTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTG  
TGGAGTGAATGGCGTATCTCGGCTCACTGCAACCTCCGCCCCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCA  
AGTAGCTGAGACGACAGGCATGTCCACCACACCAGGCTAATTTTTGTATTTTAGTAGAAATGGGGTTTGGCATGTT

Fig. 6. 137

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GGCCAGGCTGTTCTCAAACCTCTGGCCTTATGAAATCTTCCTGCCTCAGCCTCCCAAAGTGCTGGGACTACAGGCGTGA  
GCCATCATGCGCTGGCCCCAAATTTGTGATTTTCAAAATTAAATTTAGATTCTAAGAGTGATGGAGCACTTTAAATATC  
TGGATAAAATCATCTTATTTCAGAATCAGGGCAATTCTTGAATCTAATCTAAAATAAGCAATGTAAAATGCTGACT  
TTTTTCTCAGCTATCATAGACTCTCTAAAAGGTTTATGCTATATCTGCCATGCCTTCAATTTACAAAATAATATGATCA  
TGATTAACTCCAGTGTCTTTTTCAGGTTATCACAGTACCTTTTCATTATTGTAGTACATTCTGGTGTCCCCATTAAAG  
ATATGCTGAATGGACTGATACTATAACCACAGTATTTTACTTTATATCTGTGTGTCTAGTAAAGCAGCATGTACCAGGGGA  
AGGTTTACCTTTAGAAATCAAAGGCTTCTATTTCACCAGGCTCCACGTTGTTAAAAACACTAAAGAGGGTGACAACTT  
CTGCGTTTCCCAACATCAGAGCATCTAGTCCCTATTTTCAAACCTTTCTTGTGCAATATGACTTGTGTTTAGTAATAGA  
GATTGGTTGGGGAATCCCATATTTTAAAGGCAACCCAGGAAGCATTATTTTACCGTGAAAGTGCTAGGGCACA  
TACTATATTAAGCACAAAGGCAGAACTCAACAAAGCCCTTTCTTTGATTATTTCCATCACTCAATAATAATTGTTCCAC  
TCCATAGATAGTTTCTTTGCAACAAACACTGCCCTGGCTGACCATCCTTCTGTAATGCAGAACTGTGAATCACTGAAGT  
GTTTAAAGGAGAGCTTATAATTCTTTAAAGCCTTTTATTCTGTTTTACAGTATTTGTGTTTTATGAAAAAATGCAGGT  
AAAAATATTCTGACCAAAATTGTATTTGTTTAAATTATTATGTATTGCATAATGTATAATACTGATTCAAACCTTAACATGA  
CCAGAGTGCATTGCTTGGAGAAATCCAAATGAAAAATATATTTTTCAGTTGAAATTCATTAAAGGATGAAGTAATCAAA  
CTTTTTTTCTCTACAAATGAGCACTACAAATGGCAAAAGTTTTCTTTTAAAAATCTGTATATAGAAAAAATCTATAG  
AAAAATATATCACTTCTTGGGTTAAACACACTTCCCCCACAACCAAAAAAATTTACGGTACTTAGAATTTCTTTAG  
AACTTAGAATTTCCATATTTTTCATCCCATTTCTCTCATTCAATTTAGAATCTGCCCTCCAGTTGAAAGGAAGTAGA  
TGGAGCCGGGCACTTTTAGATTATTTCAAATCTGAGGAATTCACAAAAATAAATGCTATTTAGTTATGTTGTTTGAAG  
TCATGTATGCAACATATCTGGATGATGGGTCAACTTTGTTTAAATAGATTAGCATCATTTACACTGAAGTTCGTGGCTCT  
GAGCTTCGTTAAAGTGAGACCTTTGTCCACATTTCCAGGAGGGCTTTTTCTCAGGGGGTTCTGAATTTTACCATGACGT  
AATTCCTAAACAGTTGTGATTAGTGCTAAATGTTATCATATAACACACACACACACACACACCCCTTGCTGTGTGAAA  
GCTAGATATAGATATTAATACTTTAGAAATACTTGTTTTTTAAATATGTAATTTATAATATATAATAATATTAGAAAT  
ATAAAGTTTATAATACATAAATACTATACTTCTTTACCATTCACTTTCTAGAACTTTCCAGCTTTTGATCACATATTT  
CAAGGGTGGTCTCCCTCTTTACTCCTCTACTAATCTTCTGTGTCTCAGTTAAACATGTGATTTTGGCTTTCTTATTCT  
CCAACATTTATTTAATTCAGACTAATTTTCTTGAAGGTATATACCAGACATACCTCGGAGATATTGTGGGTTTCA  
TCCAGGCCACTGCAATAAAGCAAATATCACAATAAAGCAAGTCACACATACCTTTTGGCTTTCCAGTGCATATAAACT  
TATGTTTACACTATATTGTAGTGTGTAATAGCATTGTCTCTAAGAAAACATGTACATGCCTTAAGTAAGAAATACTTA  
ATTGCTAAAAAATAAGCTAACAACCATTAGAGCCTTCAGCAAGTCAGAAACATTTTGGCTGGTGGAGAGTCTTGCT  
CAATGTTTCATGACTGCTGACTGATCAAGGTGGTGGTGTGCAAGATTTGGGGTGGCTGTGACAATTTCTTAGAATAAC  
TACAGTGAAATTTGCCACATCCATTGATTCCTCCTTTTCATGAACAATTTCTCTGTAGCATGCAATGGTGTTCAGCA  
TTTTACCCTAGTAGAACTTCTTTCAAATTTGGAGTCAATCCTCTTAAACGCTGCTGTGGTTTATCTACTAAGTTTAT  
ATAATATTTTAAATCCTTTGTTGCCATTTCAACAATGTTTACAGCATCTTTACCAGAAGTAGATTCTGTCTCAAGAAAC  
CATTTTCTTTGCTTCATCCAAGAAACAATCCTCATTCTTTCAAGTTTTATCATAAGATTGCAGTAATTTTCAATACAAC  
TTCAGGTTCCATTTCTAATTTCTAGTTCTCTTGAATTTCCAGCACATCTGCAGTTACTTTCTCCACTTGAACCCCTCAG  
AGTCATCCATGAGGGTTGGAATCAATTTCTTCAAACCTTCTGTTAATGTTGATATTTTGACCTATGCCTATGGATCACA  
AATATTTCTAATGGCATCTAGAATGGTGAATCCTGTCCAGAAAGTTTTGACTTACTTTGCCCTGATCCATCAGAGAAA  
TAAGTGTCTATCATAGCGATAGCCCTATGAAATGTATTTCTTAAATAATAAGGCTTAAAGGTTGAAATGACTCCTTGA  
ACATGGGCTTCAAGATGAATGTTGTGGTAGCAGGCATGATAACATTAACCTCCTTGTGCTATCTCCAGCAAGCTCTTGA  
GTGACTAGGTGCATTGTCAATGAACAGTCATATTTTGAAGAATCTTTTCTGAGCAGTATGTCTCAACAGTGGGC  
TCAAAATATTTAGTAAACCATGCTGTAAACAGATACCTGTCTCAGTCCCTTATTTTTTATTTATAAAGCACAGGCA  
AAGTAGATTTAGCACAATTTCTCAAAGGCCCTAGAATTATTGGAATATTAAATGAACATTGTCTTCACTTAAAGTTACC  
ATCTGCATTAGCTCCTACCAGGAGAGTCAGATTTTCTTGAAGCTTTGAAGCCAGGCATTGACTTTTCTCTCTAGCT  
ATGAAAGTTGTAGATGGTATCTTCTCCCAATAGAAAGGCTATTTTGTCTCCACTGAAAATCTGTTGTTTAGTGTAGTGC  
TTCATCATGATCTTAGTTAGACTTTCTGGATACTTGTACAGTTTATACATCAGCACTTGCTGCTTCACTTCACT  
CCTTTTTTTTTCCAGCTTTTATTTTAGGTTTCAAGGGTATTTATGCAGCTTTGTTAAATGGGTAGCTTGTGCACCCTGT  
ACTTTTATGATTGGAGATGGCTTCTTTCTTTAAACATCATGAACCACCTCTGCTGGCATCCAATTTTCTGTCTGCA  
GTCCTTAACTCTCTCAGACTTCAATTGAATTAAGAGAGTTAGGGCCTTGTGTTGGGATTAGGCTTTGGCTTAAAGGGAATG  
TTGCGGCTGGTTTATCTTCTATCCAGACCACTGAAGTTTTCTCCACATTATCAATAAGGCTGTTTGGCTTTCTTGTCA  
TTTCTGTGTTTACCAGAGTAGTACTTTTAAATTTCTTCAAAGCTTTTCTTTGTATTCAAACTTGGCTAACTGGGTAC  
AAAAGGCTGGCTTTCAGCTGTCTTGGCTTTTGACATGTCTTCTCACTAAGCCTTATTTAGTCTAGCTTTTGACTTA  
ATGCGAGAGACCTGTAACCTTCTCTTCACTTGAACACTTATAGGCCATTGTAAGGTTATTAATGGCTTAAATTTCAAT  
ATTATTGTGTGTGAGGAATAGGGAGACCTGAGGAAAAGAGAGAAATGGGGAATGGCCAGTCAGTGAAGCAGTGAGAA  
TACATGCAACATTAATCCATTAAGTTTACTGTCTTACATGGGCATGTTTGTGGCACCCCAAAATTTAAATAGTAACA  
TCCAAGACCACTGATCACAGATCACCCTAGCAGATATAATAATAAGTGAAGTTTCAATATTCTGAGAATACCAAAA  
TATGACATAGAAACACAAAGTGAGTACATGTTATTGGAAAAAATGGTGCCAATAGACTTGCTTGATGCAGCATTGCCAC  
AATATTCAATTTGGTAAAAGCACAAATATTGTGAAGTGTGATAAAGCAATGTGTTAGTCTGTTTTGCATGGCTATAAAGGA  
ATACGTGTGACTGGCTAATTTACAAAGAAAAGAGATTATTGGCTCATGTTTGTAGCAGGGGTCTGGGCAAGGCACCA  
GCATCTGCTTGGCTTTTGTGAGGCTTCAAGGAAGCTTTTATTTCATGGCAGAGGTTGAAGGGGGAGCAGCTTTGTGATG  
ACAAGAGAGGGAATAAGAGAGGGGGCAGGTGCCATATTCTTTAAACAATTAGATCTCACAATACTCATGACCACAGGG  
AGGGCACCAAGCCATTTATGAGGGCTCTGACCCCATGACCAAGCATCTCCCACTAGGCCCAACATCAACATTGGGAAT

Fig. 6.138



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CAAATCTCAACATGAGATTGGAGGGTATAAATACCCAAACCATATCAAGCAAAGCACAATAAACAAGTATGCCTGTA  
TTTATACACATATTACAAAACAGAATTAAAAACAATAAAATCATATGCAAGGGATTCTGGTAAATATACTGATCCCC  
TCAATCATGCATTAGTCATATATTAATGTATTCACTTTATATTCAACCAACAAATAGTGAGAGTCTGATATTTGCTGTA  
TACTGAGGTATGCACTGGCGACCCAAAGGCTCAACAAGACAAAACACAGCCTTTCTTTACAGGGGATTGAATCAAGTA  
GGGCACGTGCAAGAAAATAGACCCTATAATCTTGTGTTTTCATATAATGTACAAATATGACTGCAGACAAATGGAGA  
AATATGAAATCTCACTGGGGAGCAAACCTCACTTTGGCTTGTGAGGAACCTAACCTTAACCTGAGACCAAAATAAGATGG  
TTCCAGGAAGAGAGAACAGCAGGTCAAAGTCCAGGGATGAGATTAAAGTAGAGTGTCTGCACCTTAGCTAAATAAAACT  
GCTAAAAACATGGCTAGACCAGAATGCCAATTGAAGGTACAGTTGATAAACTTACCATTAACTTTTCATGTAACCAATA  
TGTGAGGTTTTTGTAAATATTTCCAGTATGCTAAGCAGCTATGATATAAACTGAAAAGGCCAAACAGTTGGATTATTCC  
AAAATTGGAAAGCAGGTGCAATATAAGAAAAATAGGGCAAGGGATTGAAAGTATTTGAAAGCAAGGTGATAGAAAATGAT  
GAATTGTGGCAACTTAGCTGGTTATGGAAATGAGTGAATATAAGAAGATACTGATATAGAAAGTATTCAAGGTCTCTAG  
AAATCTCTATGATGTCAAACAGGTGAATTAGAATACTGAGCAAACAAAAGATAGATCATATTTGGAGGACAGAATGAA  
CTTTAAGATGTAAGTCTAGAGGTAAATTAAGGTATGTTCAAGACCTAGAGGGTGTGAGGGAAGAGGGTACTGCCTT  
GGAAAAGATGTAGCTGAGGAACCTGAGAGATCGGGGATGAGGTGATGCCTCCACATCAACATCAAAGTCACCCAGGACT  
GCAGCAGGATTCAAGCTGTCAAGATGACAAAAGGTGGGCGAGTTTTCAGTGAATGAGAACTGACCAAAGGGACTGGCA  
GAAGTCAGAGACAAGGAAGTAGAGTTGATTGGCATGTGCAAGAGAGAGTTCAGTGAATGAGAACTGACCAAAGGGACTGGCA  
AAAAGTGAGTAACCAAGGAGAGCACCCATTTTCATCTTGGGACCCAGAGAGGGCATTGAGAACCCAGAGTACCTTACCTGA  
ATCCACCACAGGGAAAGTGACATCTTTAGCGAAGAGTCAAATTTGAGAGAGGTTAGGATCTGGGATGACTTTTGGTGGC  
AAGGCTGAGGATGAAGTGAAGTCTGTTTGGCATGGGAAAAGGGATCCAGAGAACTGATTGAATAATATGGAAAGAATG  
AGAATGGGAGGATAGACAGGGGAGAGAAATCACAGTCAACATGGGGATAAGAAGTTGAAAGAACACAGGGAGAGGAAG  
AAGCTCTGTATCAGGTGGTTGTCTGAGATATGATTATGAAAACAGCATTCCAAAATATTTTCAATAATTGGTCCACCTGT  
CCTCTGACTGATGGGTGTTAAACCAGGGAACAAGAGTTGAGCATAGCTAGTAGGTCTTTTGGAAAGACCATAACGTTT  
GTCTAGTCCCAAGTAAGTAGGTCTGCAATGGTGTCTTGGGTTCCCTAGTACATTTTTCAGCATCTATTGGAGAATAGGAGC  
TTCTGGTGTCTTCACTACTTCTGCATCTTCCAGATTACTCAGCTGTTTCCAGATTATTACAGTCTCTGGAGTATGGAG  
AAGGATCTGATTTTTTAAAAAATATGAATTATCATTTTCAAAGTATTAGTTTATTTTAAATAATTTTATATCTAACTC  
TAATATTTTGGCAGCAATAATAACATCTTAGGTATTTGAATTAGCATTTGAGTTTGCTTTTGGAGATTTTGTCTT  
GAAATAATAATTAATTAACACTATTGCTTTCTTATATATTCTTAAATACTATTTCTGGCATTCAAGCATTATTCCAG  
TTCGTCTGCTGCCAATTTTAGCAATAAAATAAAGAATAAAATTGAATTCAATGTGGAAAAATTTCTATTTGTAGAAAAC  
ATTCGTCTGTAAACGGGGTTACTGTTGTGACCTTAGTGAAACAACAGAAAGGCACGTGCATACGGTTTTGCCCTTAGCT  
TGGATTAGACATATTATTTGCGAGCTTTAAGTCATAGCAACCTATGATCATGCTAATTTTATTTAAGGCTATTGTATA  
GAGTTGTATGATTGAGACCTGGAAACCAAGATCCTTGATGTAATACATATGTGTCACACAATTTTTTATTTCTCTCTCT  
TGGTGACCTTGTCTGGGTCAATTTTTTGTGTTGTTGTTAATTTTACACTGTTTGAACAGTATCTGTGACTAGAATTTG  
GCAACTGTAGAGTATATCATATGTACACAGTGCCTTAGCAAAGGGTTTTAATTAACTCAGTGGAGGAGACCCAAGCAG  
AGGAGCCTTCAATTTGTCTTAAGAAGAAATGTCAAGGTTAATTGATTTTCAGAGGATTATCTGCAACAAATAAGACCAA  
GACTCATATCTTCTTATTTTGGCTTATAAATCTGGTATGTTCTGTTCAATATCCACTGAAAAAACTGAGATGAGAGT  
GTTTCTATAAACTCTATATGTCAAAGCATCCTTTCAGTGTGGCAAACTGAATGAATGACAGTGAATGTATACTTA  
TGGATTAGATATAGTCATTAAATGATTATTATGATAAGTATATGGTAACATGGAAGTATTTAGAAATGTTTGGAGG  
AAAAGCAAAATATACAAGTATATCCAGGTTAAAGTTAAACATGCAAAATATATGCTGCAATGTGGCTGAGAACTGGA  
AAACAATGTGAAAATAATTTGAATTTTTTGAATTTTACAAAATTTGGTTTTTTATTTTCTCACATTGATTTCTATTAAT  
GAAAATAAGTGTATTCAATCAATAAAATTACATTAATTTTATTTTATTTTACAATTTTATTCTATACAAATTCATC  
TATTGTGTCTTAGTATATGACAGACACAGTTTGGGTAAGTACTGGGAATATTTTATATGTAGATTTTAAAAATTCATGAAC  
TTTGTTTTTTACAGGCAATCCATAGGAAGTTTGGCAACTATGGTGGGAGGTAGGGATACTTGGGCCCTTTCAGAAATC  
TCCAGACTCTTGTATAACCATTCCTCTGTTGGTGACCGACTCCCCAAAAAGATCACCAGCAGAACCAAGTGAACCT  
AAGTATTCATCTCAGTGAAATAAGGGAGGACATCACCTTTAAATTAGTAGTATTTTGGAAAGGGGAAGTAAAGGGAAG  
ATATTTGTAGAGTTTTATAGCCAGGTCTGGGAGCCTGATCTTCAAGGTGGAATAATGGCTGGCATTAGGCAGAAATTTA  
GAGCCTAGCAGTTCTGGATTAGTGGGGTCTCTAAGAGCAGTGAGGTTCTCAAAGTGAACCTTGATAAGTGAACCTGTTAG  
TCTTATTGAATAAGCTGGTTCAGGCCATTTACAGCCTTATTTTCCAAAAGCAAACATTTCTGGAGCAAGTACCTAAGT  
TATTTTTGCTTGGTCTCCATGTGCTCAGCATTAAACAGGCATTTAAACTTTGACTCCAAATGTTTAGCACTGGGACA  
GAAAAGTATTTTGGTTTTAGTTTTTACCTTCTTGTGAGCGACCTAGGTTTGATCAACTCATTGCTGACAAGCCGGA  
TCCTTTGTCCTTATTTTATTTTATTTTATAGACTTATATTGTCACCTATATTGCTTGGAAATTTAGGAAACACAGTCTCT  
TGGGATAGCTGGGGGGATGAGAAGTCAAGAGAGGTAAGGTCTTAGGGTAGACAAGTGGGTAGACTGGGCTACTCAGT  
ATCCAATCTCTTCTGTTTTTGGGGAGTTTTCAAGATAGGTGAGAGAAAGGACCTAGCCTTCCACTAGGGGAGTAGGAAT  
ATGCATTCCTCTGCTGCCCCCTCTGGCAGACAGAGGGAGGGTCTATAACCTCAATGTAGTCAATCTGATGTTCTTAGC  
CAGGACTTTGAATCTTGGGGGATGGCTCAGACCATCACATATGCCACTATCGAGTGAAGGGCCAGTGGCATCTGTTG  
TAGCTGCTGACAGTGTGGCGAAGAGCAGTGTGTCAGCAGCAGGTGAGGAATAGGGTCCCAGGCAGACTGATCCAGCCTC  
CCAGCTGCTTATTATCTTCACTGGATTCTGCTCAAGTCTGCTTCTTCAAGCTCCCTGTTTTATTCTGAGTTCTATCTTAT  
ATTCTTTTGTGATGATTCCTTTCTGCTTATGTCAATCCATCATTTCTATTGTTTGAATACAGCCCTTGTATCACTC  
TAGAAACTAAAGTACAGAAACTGCGCTGACTTGTGATGAAGTTTAGGTGTAAAATAGTAGTAAAGTTAGTAAGGAAAA  
ACCAAAGGGGAAGATTGAATTTTATTTTAAATGCATTATTTTACATAAAAGATAACAAAAGGAGGGGTAGTGAAGAG  
AAGAGTCTCTTGTAGATGTCCGTGGCAAAGTTTTTAAAGCTCTCAATAAGGAGACAAGGACTGGGCTTCATTGCAATTAT

Fig. 6. 139

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TCCCTTTTGAAGCTGGTAGGCTTACAATGGACTCCTAATGAGAGTGGTTTGCACTACAATTAATTAAGTGCA  
TGACATTATAAACTGCATGTCTCTCCCTCTGGAGAATATTCTTCCTATATAAGTGCTATTTTGTGTTTAAATTTCTCTCT  
CTGTCTCTTCTCTCTGTTTCCCTCTCTTGTCTCTCTCTCTTTTTTATTTATTTATTTATTTTATTATTACTTT  
AAGTTTTAGGGTACATGTGTACATTGTGCAGGTTAGTTACGTATGTATACATGTGCCATGTGGTGCGCTGCACCCACT  
AACTCGTCATCTAGCATTAGGTATATCTCCCAAAGCTATCCCTCCCCCTCCCCCACCACCAACAGTCCCCAGAGTG  
TGATGTTCCCTTCCCTGTGTCCATGTGATCTCATTGTTCAATTTCCACCTATAAGTGAGAATATGCGGTGTTTGGTTTT  
TTGTTCTTGGCAGATAGTTTACTGAGAATGATGATTTTCCAATTTTCATCCATGTCCCTACAAAGGACATGACCTCATCATTT  
TTTATGGCCACATAGTATTCCATGGTGTATATGTGCCACATTTTCTTAATCCAGTCTATCATTGTTGGACATTGGGTT  
GGTTCCAAGTCTTTGCTATTGTGAATAGTGCCACAATAAACATACGTGTGCATGTGTCTTTATAGCAGCATGTTTATA  
GTCCTTTGGGTATATACCCAGTAATGGGATGGCTGGGTCAAATGGTATTTCTAGTCTAGATCCCTGAGGAATCGCCAC  
ACTGACTTCCACAATGGTTGAAGTGTGTTTACAGTCCCAACAGTGTAAAGTGTTCCTATTTCTCCACATCTCTCC  
AGCACCTGTTGCTTCCCTGACTTTTTAATGATCACCATTCTAAGTGTGTGAGATGGTATCTCATTGTGTTTGTGATTG  
CATTTCTCTGATGGCCAGTGTGGTGAAGCATTTTTTTCATGTGTTTTTGGCTGCACAAATGTCTTCTTTTGAGAAGTGT  
CTGTTTCATGTCCTTCCACTTTTGTGAGGGTGTGTTTTTCTTGTAAATTTGTTTAAAGTTCATTGTAGATTCT  
GGATATTAGCCCTTTGTGAGATGAGTAGGTTGCGAAAATTTTCTCCATTTTGTAGGTTGCTTCTGATGATTCT  
GTTTCTTTTGTCTGTACAGAAGCTCTTTAGTTTAAATAGATCCCATTTGTCAATTTTGGCTTTTGTGCTGCTTTTG  
GTGTTTTAGACATGAAGTCTTGGCCATGCTGTCTGATGGTATTGCTAGGTTTTCTTCTAGGTTTTTATGGT  
TTTAGGTCTAACGTTTAAAGTCTTTAATCAAAAGTGTCCCTGAAGGAAAATTAAGTCTGCTGTTAGTCCACTGAGAAAG  
CTTCTCTTTTAACTGGAACATATCTTTGTCTAAGTCTCCCTCACACCTAGTGTAAATTTATCAGCGTTGTTCTCTGA  
TACAAACATTTTGAAGACAATCGTGAGGAAAAGATGAAAAAGTTGCATTTAAGTCTTGTGTTACAGGTGTCTTGTCT  
CCAGAAGTTACTGTCTTTGTGTAGTGTGCATGCTGAGTGTAAATTTACAAAAGAAAGAGGTTTAAATGACTCACA  
TTTGTCCGTTCTCACACTGCTATAAAGAACTGCGCTAGACGGGGTAATTTACAAAAGAAAGAGGTTTAAATGACTCACA  
GTTGAGCATGGCTGGGGAGGCTCAGGAACTTACAATCATGGCAGAGGGGAAGCAACCTTCTTACGTTGGTGCCCA  
GCAAGGAGAACTGCAGAGCAAGTGGGGAAAAGCTCTATAAAACCATGAGCTCTCATGAGAACTCACTATCACGAGAA  
CAGTATGGAGGTAAGTGTCCCATGGTTCAATTACCTTCTACAGGTCTCTCCTGTGACACATGGGGATTATGAGAACT  
ACAATTCAAAAGATGAGATATGGGTGGGGACACAGCCAAACCATGTCAAGAAGTATTTGAGAGACAAGTATTCCCAA  
ACCTTATCATCAGGTCAGACCTGGCAGGTGAGACATTAGCAGGTGAACACAACATTCTCAGAAACCTTGAGAGTAC  
TCCTTTCCCTCCAGGCATCTTCTTTCAACCTTAATATATTCTATTCAATTATATTACAGCTTTTTACCTCAATTATAA  
TTCCATCTTCCAAATTTGTTTTCTTCTCCCATCTTTCTCTTAATAAATATCTATTCTCAGATAGTCTTCTTTGT  
AAAATAGAAAGGATCTACAAAAGCCATTCTTTGTGAGATGTGAATCATTTCAAATAAATTAATGCTTGTGTTGAG  
AATGGTGGACTTGTGAAGAGAAGTGGGTAGATATTTGAATTTCTGAATGCTTTAGAATATTAGTTGCACATGCAGTAAT  
ATTTCTGTAGCTTAGAAGAAATTGGTTGGCTTAACAGAAATGCAATTAATAAGTTTACAAAATAGGTTCTGGCATCA  
ATAATAGAAATATTAAAGAACTACATATTATATCAAGATGCTTCTCTTTTTTTCGGGGGGGGGGTGCCTTTTCTTCT  
TGATGAACACAGTACTCTTCTTCTTTGTCTTTTATCTTCCATCTCAAATTTGCAATAATAAATTTGAAGAATGGAGAA  
TAATACATTATCAGTGCCAGACCTTATGCTAAACCATGGATATGTTATATTGTTTTCATACTCAGGATGATGCTACG  
GTAGGTACCATTATTATCTTATTTTACTTATAAGAAAACAGAAGCTGGAGAAAGTTAAACAAATTTCTCAGTATCAGAA  
AGAACCAAGATCAAATATCTAGGTTAAGGTATTTTATCTTAACTAGATATGCCAGAATATCAAATCTAGGTTTCACTA  
TTATTTTGTATTCTATCCAAATTTCTAAACTGCTAATGATGGAGGGCTGTTATATGGTTCTAGCTTTATATATTTTT  
TATTTCAACTTTTATTTTAGATATATGGGTATTTGTACAGATTGTTTACATGGGATTATTGCATGATGCTTAGGTATGG  
TATATCCCATTACCCTGATAGTGAGCATAGTACAAGATAGGTAATTTTTTAAATGCATCCCACTCTCTACCTCTA  
GTAGTCCATGGTGTCTATTGTTCCCATATTTATACATATGTCCACGTGTGCTGAATGCTTAGCTCTCATTATAAGTGA  
GAATGTGCAATATTTGGTTTTCCATTCTGTGTTTAAATTTGCTTAAGAATATGGCACCCAGTGGGCGGGCGCAGTGGCT  
CACACCTGTAATCCAGCACTTTGGGAGGTGAGACAGGTGGATCACCTGAGGTGAGGAGTTGTTGAGCTGAGATCGGGTCAATGCACTCCAGC  
ACATGGAGAAACCCGCTCTACTAAAACTACAAAATTAGCCAGGCGTGGTGGCGCATGCCTGTAATCCCACTACTCG  
GGAGGCTAAAGTAGGAGAATTGCTTGAACCCAGGAGGTGGAGGTTGTGGTGGCTGAGATCGGGTCAATGCACTCCAGC  
CTGGGCAATAAGAGTGAACTCACTCTCAAAAAAAAAAAAAAAAAAAAAAAAAAARGCATATGGCTCCAGCTCCATTAT  
GTTGCTGCAAAAGACATGATTTTATTCTGTTTTGGGGTTGCATAGTATTCTATAGTATATATGTACCACATTTCTTTA  
TGCAATCTACTATTGATGGGCACCTGGGTTGATTCCACATCTTGTCTATTGTGAATAGTGCAGTGTGAGCATATGAGT  
GCATGTGTCTTTTAGTAGAATTATTTATTTTTTGTGGAAGTATATACCTGGTAATGGGATTGCTGGGTCAAATGGTAAT  
TCTGTTTTAAGTCTTTGAGAAATCTCCAGACTGCTTTCCAAAATAACTGGACTAATTTACATTCCCAATGGTGTA  
TAAGCATTCCTTTTCAAGCTCGCCAGTATCTGTCAATTTTTGACTTTTTTATAATAGCCATCTGACTGGTGTGAGAT  
GGTATCTTATTGTGGTTTTGATTGCAATTTCTCTGATGATTAGTGACGTAAGCATTTTTTCATATATTTCTTGGCCACTT  
GTATGTCTTCTGTTTCAAGCCCTTTGCCCCTTTTAAATGGGGTTATGTGTTTTTGTCTTATTGATTGTTTAAAGTT  
CCCTGTAGATAGTGAATAATTAGGCCATTGTCTATATGATAGTTTGCATAATATATTCTTCCATTTTGCAGGTCTTCTGTT  
TACTCTGTAGTTTCTTGTGTGTCAGAAGCTATCTAGTTGGCCATCTTGGCATCTAATCTTTAATTTCTTTCTAAAA  
TATTTGAATGTTTGTCAATTTCTGACTGAAGTTACTTCTCTTCTGAAGAAGGCCCTGCTGACATCAATAATTATCT  
GAGAGTGACATAAGCTGACTCCGATTATGCCAAAGTAAACCTTACTGTTGATGAAAAGAAATGAAGGTGACTATGATT  
CCTGGGGCATTTGAGATTCTGAGAAAACCTCCAGGTGAGCTCGCCATAAAAAATCCCAACCTGTAGTTTAAATTTACCA  
ATTAGGAAATATATATTTGGGGCTAAATGGTTTCTGATTTGTTGGCTGAAAGAAATAATGTACTTTTAAACAATATA  
AAAGTTCTCTGCTAGGAATATCTTAAATACAGTGAAATCTGCCTTGACAGTGGACAGTAAGTTAGATTTCATTGTTGT

Fig. 6 140



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AAATTGGCACCATTAACTAAAACCCCTTGTCATTCAAAATAATATGTATTGTACATAACACTAAGCTCTGTTATTAAA  
CTGCCACAGATTATTGCTTTAACAGTTTGAATGATTTTAGAAAATGACTTTGTACAATGCTATATTAGAGTCTGT  
TAATTGATGAGAAAACCAACTCAGATGACATTTGCAAAATAAAATTTGGCATCAGTTGAAACATCTGTACCATTCTC  
TTATTTAAAAGACATTTTTCATCTGGAAAATGACTACTTTCGATTAGCCTCAGATCACAAACCACAAAATAAAGTTGTCTA  
TGGGTGGCTTCTTATTGTCATTTAAATTATTATGTTGTCAGCATTTTGTATGCACAAGCAAATGGAAGATTGTTTTGAAT  
GACATAGGCTTATACACCTGAGAGAGAAATATGTCATCTACAAAATGTAAAAATATAGGTTTTTGTAAATGCCTCTGAA  
AGGATTATAAGAATCTACATTTTCCCTCCCTCGGAGTTTGTCTTTCTATTAAAGCTCTAGACGAAAGAAAGCTCTA  
ATATACTTTCCTTGGAGGGTTCATGAGACAATGAAGCATAATAGGATTGAAAGTATATTGGATATAAAATTCATGTGAT  
ATCCTCAAGTAGAGAGATGTTATTTACTGTTCTTAACTTTTACTGTTGGCGATAATTGCCTTTGTAACTAACTTTA  
TGTTGTAACTAGTAGCGAACAGAGATTGAGTTGAGAGGTGGGGTAACAGATGAGATCCTCACTTGTGAGGGCTCCA  
AGGGCCTGTGAGGCAATGGAAGGGCTGACCTTGCTACCTGGATGGGAACAATGCTGTTATCATTTCATGTGCTCCTG  
TTTAGAAGATGAGTTAACATCCATAAAAACAAGTTAGACTAAGGGTTGTCACTACAGCCTGTGGGCCAAATGCTGCC  
TGCCACTTGTGTTTATAAATGAAGTTTCTTGGAGCTTGCACTACTACTGCAGAGTAGAGTAGGGAGATGGAGACCATT  
CGGCCCTGCAGAGTCAACAATGTTTAAATATCTGGTTACAGAAAACCTTTGCCAAGCTTTGATTAGACTATCTGTAAC  
TTTAGTAAGAAGTTACTGACTGCACAAATACCAGGATATTTAAGCTTGTAAAGTATTAATAATACCATAACTATCTGCT  
TCTTGTGGCAGGGAGGGGCCAAGGAGAGGTGAAGTGGTTATAATGCTCGTGCATTGGTTCTTCACTTACCAGAGTGA  
TTGTGCGCCTCTCTGAAACAGGGATAATGCCAGGTACTCAAGATACAGCAGTGAGCAAAAAGAGGCATAGTGCCCTTCC  
TTAATGGAGATATGCATTGGAGTCACATAGCATAAATATGTTGACAAATATCCCTGCTCTCATGGATCAAGAGGTTAGA  
GTTTTAGGGTAACCATGGAAGATCTCACTGAGAATGTAACCTTTGAATAAAGGATTAGAGGACTTGAGGAAGCCAACCAT  
GCTGCTAGAGTTTCTCTGCAGAGGAAGGGGAGTGAATGAGATAGAGTAGAGTGAAGGACAATGTGAGCCAAGATTGTTTTT  
TAAGTTGAGGAATTAACAGCATGTTGTATGCTGAGGGGGACAATTCAGTGGAGAGGGGAAATGATGTTGCAGGAAA  
TTGCTGGGATAATGCTTTGAGCAGATAAAAAGGGATTGATCCAGTGTACAACAGAAGGGACTAGTCTTGGTTTTGAGT  
CAAGGACAGTTTATCCATAGTAAAATAAGAGAACGTAGAGTATATGGGCACAGATGCAGGTCACTGGGTAGTCGTGGT  
GTTGAAAATTGTAGAAGTTCTTTTTTAACTTTAATTTTTCTTAGTATGTCAAAGGCCTGAAGCAAAATAGAGCA  
TGGTATAATCAAAGAATTGAGAGAAGAAAAACATAATCTAACTGTAAATTAGCAATACCATTGGAGCCAGATGAGGCTG  
ACGAGGTACACAGGATACAGACGTACAGCAAGACTAAGAATATGGTAATGTCAAACCAATTAAGAATGGGGTTAAATCAA  
ATTTGCCCTTTTAAAAAAGATGACTGTGGCTACTGATAGAGATTGGATAGGAGAGTGCAACAAGAGTTTCTGTGGAGA  
GACCAATCAGGAAGCTACTGCAGTAATTCAGGTGGGAAATGAAGGCWTCATGGTCTAGAGTAGAGGGAGTGGGAGAA  
AGAAATGATCAGATTTTGAAGATATTTAGAGGCAGAGTAGATAGACTTACCTCACTTATGTTGGGTATGTAAGACAT  
TGCTATGTAAAGACTGAGTAGAGAAGAGAGCCTAGGAGTAGATGTGGACACTCAGGAGAAGGATTGAGATCCTGGTTT  
AGAACACTGAGTGAGAAGCTGGGTATTGTTAAAGAAGAGACCCAACTTCACACTGCCTAGCAGTGAAGAAGCAGAT  
CAACAAAATCATATGGTGCGAAGGGATACTTGCCATTAGATTAGTCCAGCTGAAGCCAAACGCTGGTTGCTTCTGAT  
TTTTTTAAATCCTATAAATATATGGTTAATTTTATTTAAAAAATTTGAACCTTTTCACTCTCATAATGAGACCAAAGTA  
AAGGTCAAAATCTTAAGAAGAAATGGGTGAGAATACAGGCAGAGTGTGTTTGCATGATGTCAATGGACACTTC  
AGTTGTCATGTTCTAGGCCATTACATTGGCCTTTCTCTTTTGAAGCTTCTCTCATGGAAACCAAGTGCATTTTATATC  
TGCATCTGTTCCAAATATGGGTATAACACAGACTCTGTGAGTAGCCTGCAATGTGTTTCCCTTCCACATATTGCTAGAT  
AACTCTGCTTATAAAAATCTGCTTGCAAAAATCATAGAACTTGAGATCCTGTCAAAGAATTACTATTAGATGAAGTT  
AAGAAATGACTGTAGAAGTAAAGAACAGAGCTGGTCTTAGGAGTCCATCCCTTCATCAGTCTAGGAGGGTTGGGAT  
CTTAGAGGCATTTTGTAGCTGAAAATCAAGGCAGGAAACAAGCCATCCCACTCTGAATAGGGCTGTGTTTCTCACCTG  
AACAGTGAGAAGAGGGTGTATATTTCTAATAAAATCCACATTAAGTTAGACAAAACCTCTGTATAACTATGGAATA  
GACTTTACTAATGGAAGAGTAATGTGAAAAGCTAAATAGGAAAATTTAGGCACGTATTTTCAATAGATCTTGCTG  
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TTTTCTGATTTTGGTGTGCTTGTATGCCACTGTGTTCTAGTAAAAATCCCTTCAATAGACTGCCAGGAGAGCAGACC  
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CTGGAGAACAGTTCAGGTCAAAATCTCCAAGTCTGTGAATGAAGCTTGGGGGAATTAATCAAAATGTTACTGAAAGA  
AAAGGGAAATCAAATCTGACTTCCACCCCTCTGAGATTTTGTGAGGACACAGAATGAGAGCATAACCTTCAGGTCCA  
GAGTGAATATAGAGAGATCTTCCACTGACAATATGCTATCAACAAAAGCAAGGTAGAGAGGAAACGTTGAGCCTCAGC  
AACCTGTAAGTCAAGACCCCTCCATCATCCCTAGATGCTTTTGTCTGTCTATTGGGATTGTGTCCCTTTCTATAACAC  
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TTAAGTTAATATATATCCCACTACCACAAAATATATAAATCATAACATTTTATTAAGTCCCAACCCCAATTTTATAA  
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GAGATTGGGAAGATACTTTAACTTTTCTTCAAGATTGTTGATTTTAAAAAATTATTAATAGTTAGAAAAGTTTGTGTA  
ATGTCATATACATTTCTTAACATGTTATCAAAATTTGAGAAATATTTAAATTTTTTTCATGTAGGAGCGTAAGATTT  
CAGGGCATTTCGATGTGGTGTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT  
GTCATCGAAGTGTCACTGCATTTGTGTCATGAGATTTAGATCCTCTCTGTCAATGTCAACATTTTATATCAAAATCAGAAA  
AAATTAATAATTTGTTTCAATGTGTGTTAGTTTGATTAACTCCTTTTCAATTAATTTACTTGTCAAGCAACCCAGGGCCA  
ATTATCATATCTATTTGAAATTTATCTCTTTCTTATTGAATTACCACTTTTGAGATGATCTGGAATAAATTTGTTA  
CAATGTACTGTCTGATATCTGAATAATTTCTATTGATTTAACCACTTGGCTTTACTGCATTTTCTTCACTCCAATAA

Fig. 6.41

TGTATTATTGAAATTTTCTTATTTCATTATATATTTTAGTCCTTTAAATCTAAAAAATAAGGATAAAAAAGCATCCTTCA  
 CGTATATTGAAATCAGGAGTCAGTAATTTTCACTTGTTTAAACATTCAAACATCTTTCTAACTCACTTCTTGATATT  
 GGGATAATTTTAAATTTTACTTTTGC AAAATTTTGC CAAAGCATCTGGCTAAATAAACACACTTGCAGGGCACCGCCCCA  
 GAGCCTCGGCAGGTACTTATGCAAGCAGAGAGCCCTGCAGCTTTGGCTTTTATCATCTTCACCATAAACCCATCTCTGA  
 TTCTCCCCCTTTCCCTACAGCACTTTCCACTAACAATACACATACACACCCATATCACACCTTACTATTTATTTTCTT  
 TATGCCCTTTTCTGTAGTATTTATATCATAGCAATTTACCATTCAACACTACACTATTTTGTCTATTTATTTAT  
 TTATGCTTTATCTCTCCACACTAGAAATTAAGCTTTGTAAAGGCAGATGTGTTCTTTCTGAGGCTGCCATATAAATG  
 ACCACAAATGGGTGGCTCGAAACAGCAGAAATTTATTTCTCTCTGAGTTGCAGAGAGAATTCGCATCTCAGAAATACAGT  
 TCAAAATCAAGGTGCTGTAGGGCTGGTTCCCTCTGGAGGCTCTGGGGGATGATTGCTTGCATGCCTTTTCATAGCCGCCA  
 GTGGCTGCTTCCAACCTTGGCACTCTTGGCATGGGGCTTCATGAGGTTCAATCTCTGCCTGTGTCTCTCGTGGCCT  
 TTTTTTTTTTTTTTAACTGCGGTCTCTGTGTCTTCTCTTTTTCTGATCTTAAACATAATTTCTTGAGGAAATCATAAATC  
 ATTGGACTTGTAGCTCACCCATAATACATGGTGATCTTATCTCAAATCTTTACCTTAATTACATCTGCAAAGATCCTTT  
 TTACAAGTAAGTTTACATTTCTTATTTCCGGGTGAACATATCTTTTGTGGACCACAGATGTTCACTCACTACAGAAGTTACAA  
 TTTTCTGTATTATGCTCACTGATGTCTCCAGCACATATAGCCAGAGCTGGAATGTAGTAGTCAATAAATAAATTTTGT  
 TGAAGGAATGCATTGAGAGCCTATAGTGCCAGATGCTGAGGTAGGTACTTAGAGCACTGCAATTTAAATATTTCCCTAA  
 CTATAATTTATCTTCTCTTTTCAATTCACATATAAAATATTTTTTTAAATTTTTTAAATTTTTTATTTTAGATTTCAGGTGG  
 TACATGTGCAGGTTTGTACATGGATATATTGCATGATGCTGAGGTTTCGAGTTTCTATTGATCTTGTCACTAAGATAAT  
 GAACATAGTACCCAAATTGGAAGTTTTTCAGCCCTTGCCCTCTCTCCCTCCCCTCTTTTTGAGTTCCCTGTGTCACTG  
 TTCCCATCGTTATGTATGTGTGTATGCAAATTTTAGCTTCCAATTATAAGTGAAACATGCAACATTTGGTTTGCTGTT  
 TCTGCATTCACTCACTTCACTCAATGGCTTATGGCTGCATCCATGTTGCTTCAAAGGATGTGATTTTGTTTTTTCT  
 TGTGCTGTGTAGTATTTCCACAGTGTATATGTACCAATTTTCTTATCCAATGCCACCGTTGATGGGCACCTAGGTTGC  
 TTCCATGTCTTTGTCTATTGTAAATAGTGTCTGTGATAAACATACATACAGAGTCCAGGCATCTCTTTGGTAGGATGGTTTA  
 TTTTCTTTGGTATTATACCCAGTAATGGGATTGCTGGGTCAAATGGTAGGTCTAATTTTAGTTCTTTTGGAAATCTC  
 CAAACTGTTTTCCACAGGCTCTGAACFAATTTTCACTTCTGCAAACAGTGTACAACCATTTCCCTTTTCTCTACCGTCTC  
 GCCAACATCCGTTATTTTTTACTTTTCAATATAGTAGCCATTCTGACTGGTGTGAGATGGTATCTCCTTGTGGTTTTG  
 ATTTGCATTTCTCTGATGATTAGTGATATTGAGTATATTTTTCATGTTTATTTGGTTGCTTGTATGTCTTCTTTTGAAAG  
 TGTCTGTTTCATGACCTTTTCCACATTTTAATGGGGTTATTTGGTTTTTTTTCTTATTGATTGTATAAGTTTCTTATGG  
 ATTCTGGATATTAGGCTTTTGTGTGAATGCATAGTTTGC AAATATTTTCTCCCATTCTGTAGGTTGTCTGTTTACTTGGT  
 TGATAGTATTTCTTTGCTGTTCGAAGCTCTTCAGTTTAATTAGATCTCAATTTCAATTTTGTTTTTGTATGCAATTTG  
 CTTTTGGGGACTTTAGTCATAAAATCTTTGCCTAGGCCAGTGTCCAGAAAGATATTTCTAGGTTTTTATCTAGGATTTT  
 TATAGTTTGAGGCTCTCCATTTAAGTCTTTAATCCATCCTGAGTTAAGAGGTAGGGTCCAGTTTCATTCTTCTGCATG  
 TGGTTAGCCAGTTTTCTCAGCACTGTTTATTGAATAAGGAGTCCCTTCCCCCTGCTTATTTTTGTTGACATTGTCAA  
 GATCAGATGGCTGTAGGCGTGCAGCTTTATTTTGGGGTTCTCTATTCTGTTTCATTGGTCTATGTGTCTATTTTTGTAC  
 CAGTATCATTCTGTTTTGGTTACTGTAGTTTTGCAGTATAATTTGAAGTCAGGTGATGCCTCTGGCTTTGTTCTTTTTCT  
 TTTAGGATTGCTTTGGCTATTTCTGCTCTATTTTGGCTCCATTTTACATTTTAGAATAGGTTTTTCTAATTCTGTGAAA  
 AATAACATTGATAACTCATAGAAATCTAGTTGAATCTGTACATGCTTTGGGCAGTATGGACATTTTAGTGATATTAG  
 TCATTTCAAAGCTATGAGCATGAAATGTTTTTCCATTTGTTTATGTGTCTATCATGTGCTCAATTTATTTCAGTAGTGTTT  
 TGTAGTTCTCCTTGTAGAGATCTTTCACCTTCTTGATAGTCTTAGGTATTTGTGTGTGTGTGTGTGTGCACCTGCGTGT  
 GTGTGTGTCTATTGTTAAGTGAGATTGTGTTCTTGATGTAGGTCTCAGTTTGAATGTCACTGGTATATAGAAATGCTAC  
 TGATTTTTCGTACATTCATTTTGATCCTGAAACTTTACTGAAGTCATTATCAGGTCTAGGAGCCTTTTGGTGGAGACAT  
 TAGGTTTGTCTAGGTAAAGGATCACATCGTCAGCAAAGAGAAATAATTTTACTTCCCTCTTTTCTATTTTGGGTGCCTTC  
 ATTTCTTTCTTTTGCCTGATCGCTCTGACTAGGACTTCCGTTACTATGTGTAATAGGAATGGTAGGAATGGGCATCCTT  
 GCTTCTTTCCCATTTCTAAGGGGAATGTTTTCCAGCGTTTGCCTGTTTCAGCATGATGTGGCTTGGGGTTTTCTCATAGAT  
 GACTCTTATTTATTTTGGGATATATCTCTTTGATGCTAGTTTGTGAGGGTTTTTATCATGAAGGAGTGTGGATTTTTG  
 TCCAATGCTTTTTCTGTATCTATTAAGATGATAATATGGTTTTTGTTTATAATTCTGCTTATCAATTCAGTATAAGTTC  
 TTTGAAGATGAAAACCTGTGCTTTTATGGTGTTTGTACATTTTGAATTTCTTAATACTGTGTATGTAGCTGACAACACA  
 TAAATAGATATGCAAATGAGTAAGAGAGTCATTGGGATCACTGCTGATTAACTTATCTTGCCATGAAAGCATTCTGT  
 TCCTCTTTCCCATGCTTGGTAAATATATCCTTTTGAAGAAACACTCTTGCCAAAAGAGAATGGCATTATTACATCCAAG  
 GGAATATTTATTTGCCCAAGAGTGTA AAAATGTATGAAAGAAATATGTAAATAAAATCCTATATGTAAATCTAATAAT  
 ATCAAAGTTTAAATGATGAAATTTGTCAAGATGATTAATAAATATCACAGTTAAACTGTATATTATATCTATGTTTCTTG  
 CCATTTGTATGCTAAAAAATTATATGATTTTGAATGTACAAAATCAAAGTCCGGGAGAAAAGATAGATCAGAGCCT  
 ATTACCAATAAATTTATCCTTTACCTCCATAAATGTTTGTAGAAATGCCAAAGCCTTAATTTGCTTATTTAAATGTAC  
 TTCAAAAAGCATTCCCCAAGTTGCCTATTTACTCTGTTATCTCTATAAATCAGGAAACTCTCCAGGCTTTCCACTGTG  
 AATGTTGTATGGAATTGATAGAACAAATTTCTTTTTATGTTGTACTCATTACCATTTAGTTACTTAGACAATAAACTT  
 AGAATGACAAATCTAAGTCTCAAATATGAATGAAAATTCATCATTTCAGAACAAATTTAGCATCACACTCTCTT  
 GAGCAAAATCTCACTAGAAAAAAGATAGAGAAAAATACGTTATAGCATTTGAAGTCTGCTACCTCATGTCTTTTATCT  
 GCTTTCTAATTTTATAGAAATAAAATATGCAATTAATAATATGACTTTTCTTAACCTTTACATAATTATAATTTATGAA  
 AATATGTGTGTA AAAATATACATGTTATATTTCTTTCTCTATACCTACCAACGCCACTCCCATTATGACTCATATTA  
 GAAGGGAGAGCTTTGAATATCATATATAACATTTTCAGATAAAAGAACTTAGGTCAGAAAAGCTAACTCTTTTGCTG  
 GTGACTAAACATACATACGTCAGTGCACACACATATTAAGTTACTGAGTTGATAGCAAAAAAAGTGAACCT

Fig. 6.142

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TTATATGGAAGTAGAATTATGTAAAAATGTCTGTCTAATTCTATACTGGAAAAATATCTCATATGAAATGGCTCCTTCAT  
ATGACAACTCAGTATTCAAAGCAAAGCACAACAATAAGAAAGTTACTTTCCCAACCAAAAAAATAATAATAAT  
TAAAAAAGAAATGTACCTATTGTGGACTAGCTGATTGGATACCATGGCCACAGCCCTGATTTCAGTAAAGACATAGT  
TTCAGAAATGTCATTTCAGATGGTTTCTTAAGTAGGGATGTTGTTATTTTAGCAAAGAAGCCCTTTGTCTTGTGACA  
TCAAAACACAAAGAATTCCATAAGTCAGTGCCAGTCTTGTTTTAATGCCATAATATCTGGCCACATATATATTTATGT  
TATGTAATGTTATTGCCTTGTTTTTTCAGAATAAGAATTTAGAACATTAGAAATTGACTTTTATAATGCAATTTTTTTC  
AACTCTTTTTTGGCTTTTCTCTAAATCTCAAATTTGTTCAATTTAGGCAATGGAATTGGACTAGTCAGTCTAATTTA  
TTTTTGTAGCCAGTTTCACCTCTCAGATTCAGGGAAACAAAGCCAACTATAAGATATCTACTGAAAAATTTGTAAAG  
AAATAATTAAGCAGACTCTGAATAAGCATATAAAATGAAGCATTTTTATCACAAGCTTTATAAATTTTTTAAAACT  
GTGTTCAATTAATTCTGAAAGCATGCCTCTTTTGTAAATATGAAATACAGAAATATTTGAAATTTCCCGAGTCATCTTGG  
CTCAGAGAGTAAACATTTGGTTGCGTTTGGTTTGCAGACACAGGGGCTGCTGCTTTTGGTTCTGTGTAAGCCCA  
TACTATTTCTTGCTTTTTTTTTTCCACAATGAGTATGTGGGTGCTAGAATGTTATCGAAATATTTTGAAGACATGAATC  
TAAATGAGCACTCTGCTATGGTTGCAGTTACAGTGCAAAACCCATCAAGTTGCTAGCATTGGACTGATAGACAAGGTA  
GGGGCAGCCAGAGAGTCTGAGTTCCTGTGAGGAACCTCAAGGGGGAAGGGGCTGTGTTACAGGGGCTGTCTGCAAGCTG  
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GTGACCACCTGCTTTATTATTGCGGGTTTTCTGCCATCTAAGACCTGGGCCACTCACCTGGATTTTGAACCTTTGCTT  
TTGCACTGATACCTGATTGAGATCCGATCAATTGCTTTTCCATCTTTGCTGTGGGGACCAAGTACAGCATGCTTTA  
TAGGTGAGCTTTTTATCTTTCTTCCAGAAAGAGTATCTATACTGTGTGAGTGAAGGAGGAAACACACCTCCTGTT  
TGAAACACAAAGGAATTTAGAGAGGAGTAAATACAGGGCCGTTTAATTATTCCCTTTAATAAGAAGCAGCATCCCCA  
CCAAAGAACATGTCGATCTTACTTGGTGATACATTTCCCTATGGAGAAGGGAGATCTGATTGAAAGAAGACCGAAGGGC  
AGGAGGGAGGGAGGGTTGTAAAGCAAGGATGTGGCTCTGTGTAACCGGGATAAAAGCACCTGCTTAGGGAGATGTTG  
TGAGAAATACCCAGCACCTCCTGCTACAAGAGGCAATCCTTATAGCTGGCTCTTGCCATGGTTAAATGATTGGGAC  
AAAAATATTAAAAAGAAATGCTCCTCGCTATACTGGTTGGAATCCTCAGGCTGGAGTAGGAGGAGCTGAGTAATCC  
CTGCACTGTCCGAAAGCTGGAATCCTGAGTAGATTAGGCCAATTTGTGTGATATCCAGGGATTCCCTCCCTATTT  
TGGGCAGAGGAATGATTGGATGGGGCAGCATGTTCTGTGAGTTGGCAGGCACCCACTGGAACAGAAATAACTGATTG  
GTACCCAGACTGCAGATACCAGCTGAATTGCCAAGCAGATATTGCCTGAGGGAAATACCTGCTAAAGTTGAAATGATCA  
CTACTTGGATGGGTAAACATTTACCAGTATCAACTAGTATTATACATAGTGTGTTTAGTTTTCTGAAATGTGCATGC  
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TAGCAATTATGAACCTTATACCTAGTCTAGGAAATTAATCTGTAATATTTCTGTTGGAATCTCAGATTATATAATTA  
AAATTATATAGGGTATGTTACATAAATTTCTGATCAATAGATTAGATTAAACAAATATGTTTGTGCATTTATTACCTG  
CAGCACTGTCTGTGCTCACTCAATACGTGAACCTTATTTAATGTAAGTCCACTTAATTTCACTGTAGAAACCAAGGAG  
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CTGAAAGGTAAGAAGGGAAACCTTCAGGGCAGTGCCATTTGCAGCTAGGTCTTTGAGAATAAGAATGAATCTTATTCA  
ATATGCTGGTGCCACAGTTAGGGCTAAAGTATCTTTAGACCTGCCATCTCTAATAATAACGGCCATTTCTGACTTGTTA  
ATCTTCCGGCTTTTTTCCCTACAATTTTAGGTCTAAATCTTCCATGTAAACACACTCTTTTCATGCTGAATCCTGCTCA  
AATACTGCCAAGATGTTTGTGTTAGTAATCCTGAAATAGAAGATTGGCTTCTATGCTAAGATAATTATGGGAGAACT  
CTTCTTTTAAATAAATACCTGGTTCTTCTCAACCCATGCCAAGAAGAATTCTTATAATATCATTCTTCTCAAAACCCAT  
GCCAAGAATAATTGTACCATATCATTTCTTGCTATTTCATCCCTTTTAAACTAAGAAACAGGGCCAGGTGTGGTGGCTC  
ATGCTGTAAATCCAGCATTTTGGGAGACCGAGGCCGGTGGATCACCTGAGGTGAGGAGTTCAAGACCAGCCTGGCCAA  
CATGGTGAAACCCGTCTCTCTTAAATAACAAAATTAGCCGGGCATGGTGGCGCATGCCTGTAGTCCCAGCTACTTGGG  
AGGCTGAGGCAGGAGAGTTGTTTGAACCTGGGAGGCAGAGGTTGCAGTGAGCTGAGATCGTGCCATCGCACTCCAGCCT  
GGGCAACAAGAGCAAACTCTGTCTCAAAAACAAAACAAAACAAAACCTAGGAAACATTAAAGCTTCCAAGGAATTG  
AGCGTTAAGTGGGGTCTAACATTTAATATGACTGTAGATCACTCCTCTTTACTAAGTCTTTTACTAGTTTCTCCCTT  
TCTCTCAATATGTACAGTTTAAATTTGGATGGGTAAAGCAAATGGGAGAGTATTGCTACTTTTTTAGTCATATTTATACA  
AATGAATTATATAATATTAATTGTTTCATAATATTCCTTGTAAATTTATAGCACTGTGAGCAGTATAAATAATTTGATAAG  
CGCTGGGCTGCCAGCCTTTGTAATGTCTTGTCAAGAGTAGATTGAGAAGTGTGACATGATGTTAGGAAATGGAGATT  
TACAAGCTTACTGAAGAATATACTGAGGCATTAGGAGTGCTTTCTGATCGGATTAATGTTCAAGTTTATTTTCAATT  
TTATCAAGTGAGTGTAAATGAGAAATTTAGTTGGCTCCAGTAAATCATTATTTTTTCTATGAAACATATGAAACCT  
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AACAGTAATATTTGATGCATTAATTCGAAATATCTTTTAAATTTGCTGCTCTCTCTTCAAAATAGACAAAC  
CAATTTCCATTTTCACTTTTCTCACATAAATGAAACCATTTCTTATAGTCTGTAAACATTTCTACATAAGTGGCTAG  
AACATATACTGCCTTATGTTTAAATGTCATGAGACCCGAACTTATTTAGTGAGTATTTGAAAGCAGTTAAAGAAAAA  
GATGATGAAACATTAATGGCTCCCTTCTCCAAGTAGAAGATAAGAGTAATATACGGTCATGGAGTTCTTTTAAAGG  
GATGATTAGTTTCTATTTCTGCATATAAAGTCAACCCAAAGCTTTGTGGCTTAAACAATAATATTTATTTCTCTCA  
TGGTTTCTGTGAGTCAAGAAATGAACAAGGTAGGGTAGAGATAGCTGGTCTCTTGTATGTAATGTCTAAGGCCTTAG  
CTGGAAGACTCTAAAGGTTGAGGGCTGAAATCATCTGAAAGTTGTTTATGCTGCTGGTGGTTGATGCTGGCTGTGGGCTA  
GAGACTTCAGTTCATCTCCATGAGTTCTCTCTGAGGGTTAGTTTGAACCTTCTCATAGCATAATAGCTGATATCCAA  
GGGCAAGCATCCCCAGAGAGATAAGAACCTGTTAGAATCTGTGCTCTTTTATGCTTTGGCTTGGAACACAGAGCA

Fig. 6.143

TCACCTTCAACCACACACTTCAATGGGTTGGATCAACAAACAAGATATCCTTCAATATTCAAAGGAAAGAACGTAATCCAACT  
CATAGATTCTACCAAGTCACAACGTAAGATAACATAAGAAGATCTGTATATTAATCTTTGGAAAAATATAATATGCTATGG  
GAGGAGTGGACACAGGTTTAGCTAATGCCAGGTTAGGGTTTTTAAGTGGGACATGAAAGCTTAGAGCTTGAAGTGAC  
GAGAAAGAGGGAGCAGGGTTGGATGGGGTGAGAATTTTACGGACTGTGGATATAAAGGGGCTGCATTAGTCAGTTTTCA  
CACTGCTATAAAGACATAACCTGAGACTGGGTAATTTATAAAGAAAAGAGGGTTAATTGACACAGTTCCACAGACCTTGG  
GAGGCTCAGGAACTTACAATCATGGAGGAAGGGGAAGGAGCATGTCTTACATGGTGGCAGGTGAGAGGAAAAAGAGT  
GAAGAGTGAAGGGGGAAGAGCCCTTAGAAAACATCAGATCTTTTGAATTAACCTACTCATCAAGAGCCGGATGG  
GGGAACTGCCCCCATGATCCAGTTACTTCTACCTGGTCTTTCCCTTGACATGAAGGGGTTATGGGGATTATAATTTAA  
GATGAGATTGGGTAGGGGCACAAAGCCTAATCATATCAGGGACAGAGAAAGGAGAAGTGAGGAGGCTGACATTATGAG  
ATGGATTTTGAGGGAATAACAGAGATGTTTAAACGGGGATATTTATGCAGCTTTGCTGTGTGGAATGTGAGGTAAATTTG  
TTTCTCTATATTTTTATAATCTTTAGAGGAAACATCCCACCTGGGTTGTAGAGTTGGATCTATTTTTGGACAAAATACAT  
TAAGTTGCTGAATATGGCTTCTATGTAGAGGGAGGGAAGTAAGTAGAGGCC'TACTAAATCTAGGTTACATCTGTTACATC  
TGCTTTTCAGAAAACCTTAGTAATAAATGTGGCTGTCTAGTTAAACGTTTGGTGGTTTCTAAATGTCTATTGCAAGACTAAAT  
AGCCAGTCCATGGTAAATTTTCACTGGGCATGTCTGAAATCAGAAATTAGACATGAATCTTTTCAAAAGCTAAAT  
TTGTTCAATTAATGAAATGATCTTTTATTGTGAGTTTATATCCTTCCAAACCTTTTAGTTTAAATGATCTTTTAA  
GAGGAAATGATGGTGACAGTAGATAGTACTTGTGTTTTGGATTTTTAACTGTCCATATTTGGAAAAGTAAATTTTACT  
GACCACCATACTTTAGTTTCTAAAACACTGGAGTGCAATCTCTAAATTGCAATGTGTTTGGGGAAAAAATTCAATCCC  
TTTGCATTAGGTATTTTTATTGACATTAGATATAAGAGAAATAGTATAAAATTTACCTAAATACACAGAAAAATATCTTT  
ACTCTTTATAATCCCAAAGAAATATTCCTTAGTTCCTTTTTCTTCTATTTACTATCAATATCTATCACAAAGCTGATA  
TTACATCAAGAATATTAATATAAATGTTCACAACTATCTTTCTTACGCAGGTTTGTGTGTGAGGATTAAATAAATTAATA  
TTTATGAAGAACTTTGAATCATGCTTGCATGTAGTAGTATGGACTCAAAATTTAGCTAATAATTTGACAAATTTTTTTGAA  
ATTGCTCTTCTTCTGTAACACTCAATTTATGCCATTGGCATAAATGTTTTGAGCTAGACAGATATGCTCTATTTCAGA  
GTTGCCCTGGAATAAATTGTTTCTTTAATCATAACTGGTACTTTTTTAACTATTTAAGCTTTAAATTTATCCAGAAATA  
AAACGAGGAAAAAGAAATTAATAAACAGTAATAAAACCAATTTCTCAGAAAGCCAAAAGATAACAACAAAAATAAAC  
TTTAACCTACAAAAGTCTTTTTAGAGAAGAAATATTCTTATCCACCTCATAGCCTAGACTCAGTCAAGGGAAAGGGCAGC  
CAAGAATATCTTAAGTGATATCCTGGGCTTTGTTTTCTTGATTCAAGTAGTGTTACATTATTATAATTTATATATCTT  
TTATCTGTATATCTGTCTATTCTACCTCAATTTATTCAATTTGACAAAAATTGAGTATCTGTGTTGAGAGACACAAAGATAA  
ATAAGATATCCACATCCCTCCAGGAAATGTAGCATCTATTTTATAATACTTATGAATATTACTGAAGATCTAATTTATA  
AAATAAATTAATCATTTTATCAAAATATAAATTTCTATTATAGGTTTATAGCCACCTAATAGATAACAAGTATGA  
GTTCCCTCTTTTACTTTTTATCTGGCCTTCCCTCAAAGATAGAGCTAATACCTAGCTACTGGGCTGAAAATACGTAGT  
TATTAGCCTTTGTGCATAGTAAGCTGGTGGTCTTAGATCAGAGGTATATGGCTTTTTTCCAAAGACACTGTGAGATACG  
CAGAACAAAAATCAGAAAACATATAATCTTTTAAATGAATCATGAAGTACCAAAATGTAAGATCTCTTAATAAAAATA  
ACATTTAGGATAGATACCATCAGACCAGTTCTGTACTCTGCCTATCTATTTTGAAGATCTTCCCTTAAAGAGCTTTAA  
CTCTGATGTTTGAAGTGGCTCATACAATGAAAAATAGGTTTAAATGCTTATTAATCAGATGTAATTTAAACACATAACTT  
TTGTGTTATAATCATAAAGTGGATTGCTTTGTTTCAAGTTTCTTCTTAAATAATATAAGAGCAAAATAAATGAAACAAA  
AATGGAGGTGTCCTCTGCTAGGTTCTCAGTTATATAGGAAAAACCGGAAGAGATAACATAAAAAATCTCCCTAAATCAGGT  
CTATACAGAAACAGATTGTCTGGATTAGAGAGTAGATAATGCATGTAATCTCAAAATATAAAATATAGCAGGTGACTTT  
TTATGGGGAAGTTTTTTCTTAATGTTGATAGTAACATATCTGTACTTGACATTAATTAATCCATATCGTAAAGATTGTA  
ACCAGAGAATCAGGCCCACTTGGTCATAGAGGCAGTCAAGGAATGGGCTCTCCACTACAATTTGATGTGAATTGTCTAC  
TTATCATGTCTCATAGTTAAACCAGATAGTTTGGTAGATTCTTTATCACGTGTGTTTCTAATACAACCAGGAAAACCTA  
TCGTATATCTTTTTTTTTTTTTTTTTTTTTTGTGAGACGGAGTCTTGCTTTGTGCGCCAGGCTGGAGTGCGGTGGCAGC  
ATCTCGGCTTAATCGCAAGCTCGGCTCCAGGTTACGCCATTCTCTGTCTCAACCTCCTGAGTAGCTGGGAATACAG  
GCTTCCGCCACCATGCGCGGCTAAATTTTTTTGTTATTTTTTAGTAGCGAGGGGTTTCCCGTGATGCCAGGATGGTCT  
CGATTTCTGACCTCGTGATCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCAGCGCCGCCAGCC  
TATCATATATTCTTACATTCTCTCTCACACAAATGTGCATGCGCACACACACATGCACACATATACATCATTTCTGAC  
ACTGCTTAACCTTTCAGAAATACAGGTTGAGTCTCTGCCACATACTAGCAGTATAATCCTGGATGAGTTACTTTAACT  
TACTTTGCTTCAGTTTGAGGATGAAAATGAGAGAATATGTGTAAGACATCTGGCACACATAGTGAGCATTCAATAAATGT  
TAACTATAAGTAGGTGACCAAGTTGGGGCCCAAGGAGATTGTAACCTTGCTTAAAGTTCATTAAAGGTAGTTTCGTGGCTAAGT  
CAGAATTAGAATCTACATATGATTCTCAATCAACCTCCTTTATACTAAGTTATCTCACTAATTGGCAGCTCTTTCCCT  
GTGTTAACTTTCTGTACATGAGAGGTTTGCCCTTCCCAAGTAAAGTTGAAGCTTCAAAGGTTCAAAGTTATGTTTAAATGAGC  
ATATCTTCATCAACCATAGGTTCTAATAGAGACTTCTTGCTATTGTGAGGGGTTGAGCACTTTTATGTTTAAATGAGC  
TTTCAACTTCACAATAGTTAACTGAAAATGTTTTATTATCTCCATTTTTCTCATTCTGTCTTCAGTAGTTCTGTATAT  
AAGAACAGCAGCCATTATCATTTCTCAGCATAAAATTAGAATTGCACTCTGCACAACCTACCATCCTCTCCCTCTGTAAG  
TCCTCAGAGAAAAATCATACAATTTTCTACTATATTTCTGCAGTATGAAGAAAAATTTTAAATATACCTATGCTTTGGTT  
TCTCCATATACAGAACTTATATATGGCATTACTCAATCACCAAGAATTCCATTATAATTTAGCTTATTGTTATGTTAAA  
TTCAGGCATACACCCAGGCCACAATATGATCCCAAGAAATAACAAGTATCCATAGGGGAAAACCTGGTAGAATAACTCAA  
GAGTGGGAATTTTTTAGTTTGGATGACTTTTATATAAAGGAGCTCCACTCAACATACATTAGTGGCAGCTATTAACT  
ACACTCGCTAGTAAGCTAATATTTGAGGTCCATTTTTACATCTCTTTGAGAGTATATCAGTATATCAGCAATACAAA  
TTACTACCTTGATTGCCTTTGGAGCTACTCTTTTTTTGAGACAGAGTCTTGCTCTGTCAACAGGCTGGAGTGCAGTGG  
CACCATCTCAGCTCACTGCAACCTCCACCTCTTGGGTTCAAGTGATTCTCTGCTCAGCCTCCTGAGTAGCTGGGATT

Fig. 6.555

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ATAGGCGTGACACCACCATGCTCAGCTAATTTTTGTATTTTTAGTAGAGACAGGGTGTCACTATGTTGGTCAGGCTGTTTC  
TTGAACCTTCTGACCTTGTGATCCACCTGCCTCGGCTCCCAAAGTGCTGGGATTACAGGCATGGGCCACCGTGCTGGC  
CCTTAAGAGCCAACCTAGCATATCCTTGTAAATCAGTTGCTTAAACAAGCTTCCTCTTAAATATGCTTTGAAAAATAT  
AAATTCCTCTCTATCAGTATCTACATTTCACTTTGAAGATCTTATCGGCTTTCAGCAGCAGGTGTGCATATCCTACAAG  
TTTCAGTTTCTCTTGATGCTCAGGATGAACATAACATCTAGACAAGGGAGCATCTGGGAAGTCTGACTAACTGGACTA  
CTTGGACTGGTTTGTCTCACAATAATGTAAGACTTACAATCTGTAGGCTGTTACCTAGCTCCTGAGAGCTACCTCCCC  
GGGCCGCCACACTAGATTTTTAGTCTGTAGCTGCATACCCAGGAATTCCTGTTTCCGTGAATCAGGAAGGATATGG  
CAAGTTAAGAGAGAAGGAAAGAACCTGCTGAGCCTTGCTTCCAAGGGATATCAGGAAGTTACTCAAAAGACGGCAAAG  
TGCTCTCTACACAAAAGTGCTGGAAGAACTGCAGTTATATTCCTTTAGGAAAGGAACTTTAAGATGATTTGGAAATA  
GCCAAATGTAATCACATAACAACCAATTTTGAAGTTTGTGGCTGCAACACTCCTTTAGGAATTCCTTGGTTTCCAGCT  
TGGTCTCATTGGCAACAAATAGAATTTCTTAAGCCTTATTAGGAGCCTGACATTTGTTTTGAGAATCAAAACTTTTCTG  
TTTGAAAACCTAGAGCCAACTCAGTTATATAAAAAACAGGGATGTAAGAGAAAGAGCAAACAAGGAAAGCTATTATGTTA  
TATGTGTGCAGAACATAATAGTTTGAAGAGGGAGACTTCTCGATGGACCAGAATAAATACTAGAATGTAATACACAACT  
CGGTTATACAAGGTAAAAATGAGTTACTGGCCCTTCAGGATGGGTATCATGATAGCTCATTAAATTTAAATAACTCCTAA  
TATGCGTGTAGCAGTTTATCAGTTAGAGAGTGCTTTACATGGGTTGCTTTTCAATAGATAACTTAGGGCAAGTGAAAG  
GCCTGGGTCTGAAAACATATTCTGCAAAATAAGCCCCCTCACTGTTAAACCTGGCAAATGCTAAGGACTCCACAGCTAG  
AGCAAATGGCTTCTATAGTTGAATAATCTTTCAATAAAGTTAGAAAATGCGGTGCTCTTCAATGCATATGTTG  
GGAACCCAGGATACTTTAGAAAGTCTCTTGGTCCAGCACTCCGACTTGTGAAAGACAAATATTGTATACAATGCTTTG  
GCTGATCTCTTATTTCTGTCAACCTAAGGTACAGTGGGTATTAACTCTTTTAGCTTCTGAAAGACAACTAATTCCC  
GACCTCCCTGTAATAATTGCTGAACATGGGAAGTTTGGGGTCTGAGTTTAAATCCAAGTAATTCATTATGCTGTCA  
TTGTCTGTGGTAGGTTGCTTGGCCACCCTTTGCCAGTATCATTATCTGTGACTTGAGGCAATGGTAAGGACAGCTTG  
TCTGAGTCTCAGCACTTGGGTGGCAGATGTGACAGAGATAGATAAATGGCCAGAGTGAGTATTTAAACCAGAATACT  
GCCCCAAGCCCAGTATGGGACCATCTACAGTATGGAAGGCAGCTCAGACATAGGTGAGTTGTTTCAGGAGACCACACA  
TTATGATCTGTTGAGCTGTTTCATCATTTTCACTTGAATAAGAGGGTGGCTGTTTTAGGCTGTGAGCTCAGCTCAGATTG  
AATCTATAGTGATTAGGTGGTGAATGGCTGCTCTCTGCAGACTGCTCAGGGGCTGTTAGAGCTACACAATGGCTTAA  
AATCAACAGGAGCAAATAGCCTCACCAAACCAGCCTTGAGTCATTCTTTAAGTGAGGGTGATTAGGAGGGTCAGCTAT  
TTTTAAGAAAGAAATCAATAATCAGTCTGTCCAGAGACTCAAAATTATTATCATGGCATTTTCCAATGTCACCTTTC  
CTCACCATCACTTTGTTGGCATTAGGCTTTGAGACATGGTTCTCACCAGCAAGATGGTTATTTTTATGTCTTATCAAGG  
TCTCTAACAGGTCTATGACACGCAAATGTTAGAAAGGAGAATAAAGCAACAATTGAGTAAAGCAATAGTACAGTGGGA  
AGAGAGACAGGAAGATGATGTTGCCATGTTTTAGTTTTAATAAATTTGTTAATATCTTTGTCTCAGTCACTGTATAGAA  
ATAAAATGTTTTGAGTTAAAGATCCTAGATCTTTCACTTGAATCCTACCTCTCTTAACCTCAGCCCTTTTGGAAAACG  
CACAAACTCCAACTGTAATTCAGCTCTAAAATAAAGGCTGGGCTGGATCCAAAGTGTTTTCAATATTTTCTGGTA  
GATTTTTACTGGTTTTTCATGAAAAGCACTTAATTCAAATATTATTCTTCCATCTTTTAATGTTTTAGTCAACAGTAAA  
TGATACTCTCTTCTGATATACTCCTCTCAAAGTGGTAGAAGAGTTTGTGGCAAATTGCCATTTCAACCATTTATTCTGC  
TCCAATAATGCAGTATTGAATACACTGAAGCACGGAAAAATTAACATAACTACTTTTATGCACTTTCAAAAGAAAGCAAC  
AGAAAACTTGGCAAAGTAATAATAGTGAAATTTTATTGCTTCTCAATAGATTAAATATACTTAATAATATCCTAGAAAA  
TGCTGCACCTTTGAAATTTTAACATGTAAACAGTGATATCTTAAATTAATAAATACTGTATAGTCCAGGGTGGTTATTTA  
TACTTTATATAGTCTATATTCTTTGTGAGATTGGGTTTAAACACATCAGAGTTTAAATTTGCGAAGACTGCAGAGTA  
AAGAAGATTAAGATGGAGGGAAGGAGGAAGAGCAGGAAGAGGGAAGTAGGTATAGAGGAAGAAGAGAAAAGGAGATAG  
TAGAAAGGGGAAAGGAAGATGGCAGGGAGGAAGGAGAAATACCTCAAGTCCATGAGGGGTTAGTGCTGAAGGATACCTT  
CATCATTAAAGTAAAGGGTGAATTGCACTGGGTTGTTTAAAGCATGCCAGATACTGCTGGGTGCGGTGGCTCACGCCT  
GTAATCCCAGCACTTTGGGAGGCCAAGGTGGGCAGATCATGAGGTGAGGAGATCGAGACCATTGTGGCTTAACACGGTGA  
AACCTGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGTGGTGGTGGGGCGGTGAATCCCAGCTACTCGGGAGGTG  
AGGCAGGAGAAATGGCGTCAACCCCGGAGGCGGAGCTTGCACTTAGCCGAGATGGCGCACTGCACTACAGACTGGGCGA  
CAGAGCGAGACTCCGTCTCAAAACAACAAACAACCAACGAACAAACAAACAAACAAACAAACAAACAAACAAACAAAC  
AAGTATGCCAGATACAATCCTAATGCAAAATTTTATCAGATGGAAAAGTATCAAAAGCTGGAATAAATAGAAAAAGGA  
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TCTTCTTAATCTTCCACACTTGACTCCACGGCATTAAAGTTAAACACTTCCTTAGTCTCTCTGAGTTGAGACAAATTTCC  
TGAAAGGAAGGTTGACATTCCTTGGACACTTTAAGGATCTGTTTGTGCTCATGGGTATAGGTTGTAAGGTTCTTTGC  
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TTCTTGCTTCCCTTCGTCIGCCATAATAGTCCCTGGGTATAGTATAAGTGCTTCTAGGGCACTCCTCTAAGTGCACGG  
TTATTGTTACTGCACAATTAAGGACTTAGATATTGAAAAATGTAGTGTGTTGGAAATTCGCAATCTCATTCTTTAGGG  
GCAGGGAACAATTGGAACACCTAAAAAGGGTCAGAGTCCAGAACCAGATTTCAGGAGAGAGTTGAGCTTTCAATTGGGT  
TGGTCCATTTTTTCACTGCTGCCCGCACGAGCTGTGCTGGAAGTGCAGAGTATTTCAAGGAAAGGCGCGGCTAAG  
CAGAGGTGAAATCTTTAGACAGATGAGTCTCAAAGAGGAAATTATGCAAGCAAGCAATGGCTACAAATGGTACTGAGGA  
TTGAAACCTAAACTATAAGTGAAGGTCTCTTCCCTAAATGATACACTCAGACTTAAACAATAAGCTAATAAGGTGGTTCA  
ATAAAGAAATGTGGGTCTGATGGAAGAGTAGAGGTTTGAAGGTGAGTAAGAGATATCTATGATATTAGCTTGGGTG  
TGTTTTTGGTATTGATGCCATTGTGTTGGGAGTACAGCAGAGGACAAAGAACTCCTTTAGCAACTTGGCCTGCAGTCA  
AATAGGCCAACATTGGAATCTGAGCTCCACTGCTTCTTACCTGGGACTAATCACTTACCCTCTCAGTCTCCTCATCT  
GTAAAAAAGGATAATAATAATAATTTGTTACCTTTGGAATAATACACCTTCTCTTCTGTACCTTTAACCTTT

Fig. 6.15

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CTCTCAACTAGATACTTTCCATGAGACTCAAATACATTCAAGTGTCTTCTGCATTAAAACTAACAAAAACAAAAACCT  
CACCTTCAACCACTTATTTCCCTATGTTAGGGTTTCTCTTGACGTTTGGGGCTAGATAATTCCTACTTTGGGGCTGTT  
CTGTGCGTTTTTGGGATATTTAGCAGATTCTTTACCCATGAAAATATTGTGTCCCTCGCCCCACAAGTTGTGGCAATCA  
AAGTTGTCTCTAGACATTGCCAAATATCTCCTGGAAGATGCCACCCCCACCCAGTTAGGAACCACTATTCTAATG  
ACTGCCTCATCTTGTCTCCCTTGCAAAGCCACACTTGCCAGTTTGTCCCTATTCTCTAGCTATATTCTCACTTC  
CCTATCACAGCCGATCCTATTCTAGTCTGTCTCTTGTTCCTTTTACCAATAAAATCATTTTTAGTAAGAAGAACAAT  
AACCTGGATAGTTCTAAATGTAATGAATATTGCAATTCTTCTCTTCTGATTCTCACAATTTGAAGTGTGTTCTTCT  
CCTGGCTCCTCTGACACTATTCTCTCTCGGCTTGATCTGGAAGCCTGGGTCTCCTGGAATAGCTGCAGCCTTTCTCTC  
CACTTTCTTACCATATTCTCTCACTGTGTCCAGGACACTAGCTCAGACTTTTTTCAAATGCTGATTAAAGGGCTTCCATG  
CTGACAGAGGGCAAACCTCACAGAGCAAGCTTTTCTTAAGCTTTTGCTTATATCACATTTGCTAGACTCTCTTGGCCA  
ATGCCAGAGTCAATGGAAGAGCCTACTGAAGGCAGAAATACAGAGAGAGAAGACTTTTGGCATAACATCTTGAGGG  
CTTCTTTTAAACCACTCCCCAGTAAACTAGTAAACTATGATCAAAACAAATAAAACTCCAAGCACTTAAATCTCT  
GGAAATGATCCTAAGGACAAATAGCAAATGAAGAAACATCTATTGAAGACATTTATGAAAATTCAATAAGAAAGGCAA  
GCCTGTGGTATTTTAAACCAAGACTGCTCCCTCTCACCCCTTCCAAGTTCAAGGAGATGGAGCTTCCATTCCAGGCTGG  
TGCAATCAAGAACACAGAGCTCTCTCCCTCCAGTGAAGGTTTCTTCTGGAAGGAACAGAACTTCAGTGTCTCTCA  
TCTTGGCCATAGTTACCCATTGCTAAGGCTAAGCTCTGGTGAATACAGTAGAGAGGTAGGGCTTCTCCCTGCCAAA  
TCCCCCATCATTGAATGGAGGGGATACCTTAGGCATGCTGCTAAGAATACAGAGGCCTCATCTCTGCTGGCCT  
CCTGAGGTGGGGGTTCCACACCAGGAGAGATAAATATAGAAGATATTAGAGTGTGCCACCTCCCAACTAAGCTAAGCT  
CCTAGAGTGGGAGTTTCATGCAGTCATGCAGGAAGACCTTCCATTTTCTCCACCTCCATCTTGAGAAACATGGCTTA  
GAGATTTTGCTGTTGGTGGCGGGGGCAATAATCCATCATAAAATAAATATTCTTAATCTCTTCCAAAGGGCATGGCT  
TCAATTTGCAACAAAGTATGGAAGTTCAAGCCTTAGAGTGGCTCAAGAACAGTGAAGCTATGGTGAAGGGCAATTG  
GGAGGAGAGTCAAGATACAGGCTAAATGACAGACTAGTTTGAGGAGAGAACAGAGAAATAACACAGCTGGGAGGAGC  
CCTGACTTGAACATTTCTTCAAAGGAGACACAATTGATGTGATTAGTGTGTTGAACAATATAAGGTTGTAAAGCAC  
TGTGTAATAACACAGCAATTGTTCCACCAATTAGTGGAGTTGAACAGCTGAATGTGGTTAAGGAAAGAGTGAAGGACA  
ATCACACGAACATCACTCTCATGCCGGCTGGGCTGTCTGTGGACATACCCAAAGATGTACCTCCCTGATAGCAAACTCA  
GTGACTTAACTGAGGGAAATTAACCTACCTGACTGTGAAGGAAATATACTTATTAATAATCCAGCCCCCTCACTAAAC  
AACCAGAAATAATAGCAAGCCCTGGGTGGTGGTAGGGGGAGTAAGAAGAGTTGCTACAGTATATTATCTGCAATATCC  
ACTTTCCAACCAAGATCACAAAGCATGGAAGAAACAAAAAATAAACCATAACAGGATAAAAGAACCAGATGGCA  
GAACTATGGGTGAGAGGGACCCAGATGTTGGATTAAATAGAGAGATGGAGAGGAGAATGAATGCAGCCAGTGTGCAAT  
GTGTCATGTCTCTAAATGTTCAAGTCCCTCAAGTCAATAGATCCACCTATTTTCTCAAGTTAATATCTCTACACCTA  
GTTTAAATCCCTGTCTATGATACAGGACTCACACATTTTATCTTCAACTTAGGCCCTTCCCTGTAGCTCCGGACCTGT  
GTATCATTACAGCTTTTGAATCTCTATCCATATGTCTCAAAGGCCTTTTGATTAAATACTACCAAAAATTAACCTCC  
CTCTATCTCCAGTGTCTCTATTTCAAGTGAATGATACCATCAAACTCTACTTTCAAATCAAACCTCTGAGATAAAT  
CTCTAACAGCTCCCTGCTTATCACCCACCCCATCATATTGAAAACCAACCCATTTAAATACCTTTGTTTGTGTCTCT  
CTCTCTCTACCTCCACCACAGTACTGTAGTGAATCTGCCATCATCTCTCACATGGATTACTGCACAGTCTCCTAT  
CTGGTGGCCAAATTAGGAGCACCTCTCACTGATTTCAATCTCTCTACACTGTAGCCAGAAAAATCCTTTGAA  
ATTCAAATCTAATCATGGTATGTGCTCCCTCTCTCTATGGAGACCATAGGAAGAACCCGAACTCCTGTGGTGTCT  
TGAGTTGATGTAGTAACCTCTAAACCTCATTTTCATGCCTGGATCTGTCACTTCTGAAAGCTCCATGATGAAGCAGC  
CTCCTCACCTCCAAGTGCGGGGTTCTCTAGTTGTCTCTTCCAGGTGCCACCAGAGGGACTTCTCTCATAAAAGGCCT  
GTGCACCTATGCTCTTTCTCTCTCTGTTATGGACTTCTTCCAGAGAGCTGGTCCCCATTCTTGATATGGGACTGTC  
CACTTGATGAGTAATAAAATCCTTCTCTGATCATACCAAGAAATTGGTGTCTAGTGTATTTATATAGAAGCTAAAC  
TTGAGAGGGAACCTTCCCATGTACAGTGAAGGTGTGATGATACCTCTTTCTACCATCTTTAAATCTTCCGTGCTT  
CCATTCCATTTTCTCTTAGGATAAAGTTCAAACTCCTTAGGTGGCCTACAAGTCTCTACAGTTAGGTACCCCCGTC  
TGCTTTCTCTCTCTCTCACATTAGTTATGCTCCCCACTGCCTGAAAACATGCAGACCTGCTGCATCTCTACCTGAA  
ATACTCTTCTCTCACCCCTGCCAGACTTTACCTAATTTGCCCTTCGTTTGTCTTTGTAACACCGCTCAGAAATCTCTT  
CCTCAGAAAGGCCTTCTCTGACACCTCAGCACAGTCTCTCTCACGAGGTGAGATGATTTTTTCTTCAAGGCCTGACT  
TTGGTTTAAATTTGTATTTTATTCATGTAATTTTGGAGTGCAATTTATCTTCTCTACTAGATATAATCACCATTAGCT  
CAAGGGCTTTATATGTTTTGCTTGCCATTGTGCTCCTCAGTGCTTAGGCCATTCACTGACCCACAGTAGGTGCTCTGATA  
AATATTTGTGTAGGTGATAGATAAATGAAGACCCTTAGAAGCATAAATATATAATCTCAAAGCAGAGATACTTTAGTT  
AGAATAAGTTAGGTTCAACTATATTAACACTCTTACTACACACACATAGCTACACTCATCAATTTTGGTGGCTTAC  
ACCAAAAAGGCTTATTTCTGTGCACACTGCATTCTGTGCTTTAACAGGATACTCCGCCCTACCTCATCTTTATTACA  
GACCTTGGCTGACGGAGGCTACCACTTGAATATTGTCTATTTTCAAAGTCCAGCAGAGAGAGTTAAGAAGGGTTTC  
ACTCTGGCAATTAATATTTCCAGCTAGGAAATGACATACTTTATCTTCAATATACAATCCATTGGCCATAACTAGTCTCA  
TGGTCTGCCCCATTGTAAGGGGAAATAGGTAATCATCTCATGCATTGAGGAGGAAAGAAGATTAGATACATGTGAC  
CAGTAGAAGTCTCTTACTGACATTTTAAATGTAGAGCTGTATGTGATTAAAGTTAAATTTGAATCTGAAGGGCTGACAG  
AAAAATTCAAGAGGATATGATATTTAAATGAACGAGGCTGAAAGATGAAATTTGGACAGATTGAATGGGTAGGCCCT  
TGCTAGCAGGAAAGACAAAATAAACAATAATCAAGAAGTATGATGAACGTGTGCCAGGGCAGTGAGGAGTGATCAGCC  
TCTTGAAGTGGAGGATGTGTGTCAAGGAACAGAGGAGATGATTAGAGTGGCAGACCTGATTATTAGCATATCCATGC  
TTCTGTCTGAAGCCTTTTGGCCTATAATGTAGAAATATCCTTGGAGTAAGCAGTTTACGATATGGTTTATAGACATATA  
GGTCATCTGGCTGGATTGCATATTCTTCATTTTTAAATTTCCAGGCTGATTGGTTGATATGCAGTCCAGAAAGAGCT

Fig. 6.146



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GGATCTGACTTAAGAAAATAAAAACTGCTTTAATCCCTCTTTTCAGCCCATTGTCTATCCATTAGCAGGTAAACACCAG  
TGTCCCTGCAAGTGTGTGAAGTGAAGGATGGTATAGAATAATAGGTTTTCTGAAAACCTGAATGCAATTGAAGGGTGCT  
ACCCTTAGCAATGATACAAAGTGAAGGATGGTATAGAATAATAGGTTTTCTGAAAACCTGAATGCAATTGAAGGGTGCT  
ATTTAATAAATCTGTCCCTAGAAGCTAATAGCACGTAGTCAATACAATTTAGCCTATTTTTCTCCCATGTTACATTTGTT  
AGTTGTACTGGTTTTGGAAAAGGAAAAGTCATGCTGTTACAGTTCCACTAATAGAAAACAGATAAATTTGGGAGGAAAT  
AGATTGGAATAAAAGCACGTTGTTAAACAAGAAATCACAATAAAGTATTGAGTAGAGAGAAACCGTTAATGGAGACAGC  
TATGTCATACCTAATATGCCCTCTTTTCATTGATCCTTAGAGGAAGCATAAGATCGCAGCTAAGTATGGTCTCTTGAGC  
CAGCCTGCCATGATTCAAATTGAAACTCCATCATTCACCACTGTGTGACCTTGAGAAAAGTTATGTAATCATTCTTGGAT  
AGTGATTCTTACTGCTATGGACAGATTTGTGTTCCCCCAAATTCAAATGTTGAGGCAACTGTGTGAGGAGAGAGGGCC  
TTTAGGAGGTAAAGTTAAATGAAGTCATAATGTAGGGTCTTAATTCAAATAGGATTAGTGGCCTTATAAGAAGGGGAAG  
AGTTTTCTCTTTTTCTTTCTCTACTTGCCCTGCACAGGAAAGTCCCTGTGAGGACACAGTGAGAAGGTAGCTATCTGC  
AAACTGGAAAAGAGTCTTCACCAGAACCTGACCATGCTGACACACAGATCTCAGACTTGCAGCCTCTAGAAGTGTGAGA  
AAATAAATGTTGTTTAACTACCCATTCTATGGTATTTTGTATGACAACCTAAGCTGACTAATACACTCACCTATAAAG  
CAGGGATAATAACAGTGCTATATGATAGTGTGTTTACAAGGATTTAATATATGTTAGTTTATATTATTTTATGTCAT  
ATATGTTAGCGTATATATTATTTTATGTCTATCTCTAATTCCTCATTTAGGATACCTTAAGAATTCTACTTTCCATGTTT  
GACAGACCTGGTTTGGATTTTCACTTCCACCTCTTGTAACCTCTATTACCTTGAGCCAGTGACTAATGTATCTAAGCCTC  
CATTTTCCCTATCTGTAATGGGATGATACTAGTGTGCTGCTCTCTCAGGTTGTTGAGGATTAAAGGAGATATG  
CATGACAATTCATCTGCCAGGTAGTAAGCATTCCAAATATGCTATTTTACTGCCATCATTAGAGGTTTGTGAGCTTCTC  
CTTTTGCATTAAAGTAAGAGACTATTCTCTCCAGAAAACCTTTGAACTACATGATGGAGGAACAAATAATAGCAGTTTCTC  
CTCAACCTTGGAACTCTAAAAATGTTTTTCTAAGCCATTCTTATCTTTATTTTGTCTATTAAAGATAACATGCATTGTG  
CATTTTGTCTTTTATTTAATATATGCCATGAGTGTCTTTCTCCCTATCATGATGTCAATGTTACATTACAGATTCTAAGG  
AGCAGGGGCCATATCCCTTAAACATGATTTATTTAAATAACAATATAGGATTGGATGTGACTACTGCTTTTGCATGA  
AACTGAAAGATGGGAGAGTGAGATTTTCTCACAGCTATGGAGTGGCAGACCTGAGCACTAAAATCCAGTCTCAGAACC  
CAGTTATTATCTCAAAATGTGAAGGCAGGAATCTATAGACAGATTATTGAACATCTCATGTATCATATCATGTATATCA  
TTAAGCTTTATATGTATGACAAAATAGTATTTTGTGTCAGCAGTGCTTCTCAAACATTAATAATGAATCACCTGAGGATC  
ACATTAATAATTCAGATGCTGATCAGGGAGTCTAGAATGGGACTGAAGTGTGCTGCTGCTTTCTTTCTTTTCTTTTCTAGACTTT  
AAGTTTTAGGGTACATGTGCACAACATGCAGGTTAGTTACATATGTATACAGTGCCACGTTGGTGTGCTGCACCCATT  
AACTCGTCATTTAACATTAGGTATATCTCCTAATGCTATCCCTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCTTCCCT  
TAATGTTCCCTTCCCTGCT  
TTGCTCTTGCGATAGTTTGTGCTGAGAATGATGTTTACACCGTTGGTGGGACTGTAACTAGTTCAACCATCATGGAAGT  
CAGTTGGCAATTCCTCAGGGATCTAGAAGTAAATACCATTTGACCCAGCCATTCTGTTACTGGGTATATACCCAAA  
GGATTATAAAACATGCTGCTATAAGACACATGCACAGATGTTTATGTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT  
AACCAACCCAAATGTCCACCAATGATAGACTGGATTAAGAAAATGTGGCACATATACACCATGGAATACTATGCAGCCA  
TAAAAAATGATGAGTTCATGTCCTTTGTAGGGACATGGATGAAGTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT  
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AAATTAAGCCAACTTTGCAAGAATTGAATTACACACATTTTAACTTAAATGCTTCGGTTCATTTCTCTGTATGTT  
GTGATTCCCTAAATCATTCACAATGCTTTTATTTTATCCCTTTTATCAAATGAGGAAGTAGTACTCTCTGACTTT  
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TGCTTGAGTCTCCATTTCTCAACCCCTAAGTCATGCCCAAATCCTGTTCTCTGACATTTTCTCATCTCTCTTACTTTC  
TTCTCCTTGGGAACTCCCATCCACTGCCACATATTCAAACATTAATTCAGCTCTCTATACACTTCTGCATCAGTGTCT  
TTCATTCCAAAGTCTTTTCTAAGTTTATTCTTCTATGCCCAATGGATTGGATACCTTATGACCTCACAGCCCTTTAAAC  
TCAACATGTCAAAAACAGAAATTCATATACTTCTTACTGTTAGGCCCAAGCCATCTGCCCAACACCAGGTTATAT  
TGTTCCCTTTATCAAAATTTTCAGTGATTATATTTACGGTGGAAATAAATTTTAACTCTTTATTTGACATTGAAAAT  
GTCGTCTCTCAACTTCAATATTTTTTGTGACCTATATCTTCCATTGCTTTTAAATATGTGGTTGACTTAAGTTTGCCT  
GAATCCTGTTTCCAGAATGTGCTGGAAGTCCCAACCTCCATGCCATTTCACTCTGAATCTAAAGATCTCGTACCAAT  
CTTTGCTTATTTCAAAATGTTGCATATCTTTAAGGCCTACACGAAATGCTACAACCTTTGTGGTATATTCTCTAATCCCT  
TACCTGAAAGTGATTGGTCCCTCCTCTGCACTGCTATAATGCATATCTTTGCTATTAGAAGACAGCCCATGCTGCAC  
TATATATTATAGATCTATGCAATATCTGCCATCTGAAACTTCAAGGCTCCATCTCTTCTCCATTTATCTCTCCAAA  
CACCCTCACAGCAGGTTGTTGTGCTAGTAATAAAATTTTATTGAAGTTTGGGGATTATGCAGGGCAATTATAGCAGAA  
GCAGGAATCAACTGGAATTAGAGTGATAGAACCACAGCCCTTAGACATGTATCAGACACTCCCTGACCAAGCTGTGCTCA  
TGGACACAGAACTCCTCACCTCCAGATACTTCCCTTCTTCTTACCAGTATCATAACCTCACAAGAAATGACAA  
AACTCAATGCCTTTTACTTCTGTTATGCAGTAATTTCCCTCTTTTGTGTTACTGTTTAACTTTCCAGCGCTTTGAGAGGC  
CAAGGTGGGCGGATCACCTGAAGTCAAGAGTTTGAAGACCAGCCTGGCCAACATGGTAAAACCTGTCTCTACTAAAAAT  
ACAAAATTTAGCCAGGTATGGTGGCCAGTGCCTGGAGGCTGGGGCAGGAGAATCGTTGAGCCTGGGAGGCGGAAGTTG  
CAGTGAGCTGAGATGGTACCCTGCACTCCAGCTGGAGGATAGATTGAGACTCTGTCTCAAAAAAATAAAAAAGAAAA  
AGAAAACCTCACCTTCTATAATCAAATAGGTTTTTAAGTGTTTTCTTAAGCTTGATAGCACTTCAGTCTCTCAGAGGA  
ATTCTGCAGTCTGTCAGTTGTCTTGGGTCAACCAGCCAAAAGTTAACTAATTTGCATAATGGCAGCCCATAAAAATGCG  
CAAAATTTATCTTTTATATGAATGCTTATTAT  
TTTTAAGGGAAGATCATATAGCTTCAAACATTTTGTGTTAATTACAATATGGAAGAAAAGAGTTCAATTCCTTAATC

Fig. 6.142

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TATCATGTGTGAGTTAGGGGACTTTAAGCAAGTTATTTCTTAGGAATCCTGTTTCCTGACCTATCAAATGAATGTAAG  
AATAGCTACCTCACATAAGTGTGAGGACATAGATAATTTCTATAAAATCATTAGTTAGAGCTTTGGCCATAGTAGGA  
GCCCTGCTCTCAGTACAAGTTTAAATGTCTGTGTAATGCTAAAAGATTACTCCATTGAGCTTTTTCAAACCTTTAAAGT  
GAGTATAGTGTTCCTGCTAGGATTCCAAAAGCTGTTTGATGCTATGATTTCTTTCTCAACATCATGTTTACTCTGAAG  
ACATTTCCATAGTGTTCACCTTAATTGAACAGAGATAGGAAATCAGCACTTTAAACCTTTCAGCGTTAAGAGTAAAT  
GACACATTAGTTTATAGACATATCAATAATTATGGAAGTATCTTCTCAAACCTGTAATGTTTTCCTCTGCCTTAGTGCTA  
GCAATCAAATCCACTGAATTAATCTGAGCAGGGTCAGGACTTTGAACCTGAGGAAAAATCACTTGAATTTGAGGCATTAA  
GTGTGTCAGTACAAGGTGTTCCAGCTACAAATTTTCTGAATCCTATTTCAAAGCAATGGTGCAGGAGACCAGATAGCCAC  
CTCAAACCTTCTGAGTCCCATAGTGTGTTTGGTATGGCTCCAGAAGCCTGTTGCTGCCCCAGAAAAGGGAGATTTACCA  
TTTCTAAAGGGTTAGCTGCTCCCTGGGGATGACAGATAGGTGGCAAAAATTTGGAATGTAAGAAATTTCTTATGTTCTA  
AAATTGCACAGAAATTTTCTAGGGAAATATTCTTTATAGATTTCCCAATTTTGTGACTAATCTCTTCATCTGAAATGT  
TTCCCTCCATAGTATGAATTTCTCTCTGTCTTCTAAGTCCAGTGTAGAATCGATTTGGTATCTACCGACTTTCCAGAT  
TCCTCCAAGTTGGGATAAATCATCATTTCTCTCTGTGTTCTTAGTGATAGAAATAAAATCATTATCACAAATCTTT  
GGTTACTGATGATGGTGGGGAGGTCTTTACAGTGTGATGGCTTGAAGTACAAAGTACAACTTGAAAGTCAGATTACCA  
CTTACTTTGGACCTTAGGCAGGTTACTTAACCCCACTTCTGCCCTCAGTTTCTCACCTGAGGACTTAATAATAGTAGCTA  
AGCAAATGAACCTTACTAATAGTAGCTACTTTATGATTTTATGATTAAATGTAATGGTGCATATGAAATTAGTAAA  
CAAGAGTTGCAAAGTAGAAAATGTGAGTGAATGTGAGCTCTCTCTATTATCCCTCAGAGACTTCCGCCACTTTAG  
GTAGAAAGCTCCTTAATAATTGTGACCATAACATGTTTATTTCTTTGTTGGTATAGTCAATACATTATCTGT  
TGAGTTGAACTGCATTTTGTGACAGGAGACAACTTAAGTTATAAAAATCCTATTTCTATTATATACTATCATAAAAGTCCG  
TGATGGCTATGCTTTTAAACACTTGACCTACCTGAATGTGGATGGTTTCTAAAAGTAAATACCTTTTAAATGCTGTTTAG  
AGTGTATGACAGGATCAGAAAGGCATATGTGCCATGGCTTGAATATTTGTCTTCTCTAAAACCTCATGTTAAGATTTAAT  
CATGGCCCGCGCCCAAGTGGCTCAGGCCTGTAATCCAGCACTTTGGGAGGCCAAGGCGGGCAGATTACGAGGTCAG  
GAGATCAAGACCATCTGGCTAACACGGTGAAACCCCATCTCTGCTAAAATCAGAAAATTTAGCCGGGTATGGTGGCA  
GGTGCCTGTAGTCTAGTACTCAGGAGGCTGAGGCAGGAGAATGGTGTGAACCTGGGAGGCGAGCTTGCAGTGAGCT  
GAGATTGCACCACTGCACTCCAGCCTGGGCGACAGAGTGAGACTCCGTCTCAAAAAAGAAAAAAGAAAGAA  
GAAGAAGAAAAGTGTGAGTATAGAGAAGTGAGACCTTTAAGAGGTGATTGGGTGATGAGGGTTCTGCTCTCAAGAATAG  
ATTAATTGATTTCTGGATTAATAGGTTTTCATGGGATTGGGACTGGAAGGAGAGGAAGAGAGACCTGAGCTGGCATGCT  
CAGTCCCCCTTGCCATGTGAAACCTTGTGCCAATTTGGACTCTGTGGAGGGTCCCCACCAGCAAGAAGGTGCTCACCAG  
ATGCAGCCCCCTTGACCTTAGATTTCTTAGCCTCCGTAACCTGTAAGAAAGTTTCAGGTATTTCTGTTATAAGCAACAGAAA  
ATGGACTAGGCAGCATGTAAACCAAATTAATCAACATACACAAATTTTGTAGCACTATTTTACTCTTTTATATAACAA  
ATAAAGCCTTAAAACAAATACTATTTTGAAGAACTTACATGAATGGTGCATAAGCATAATTTAAACTTTAAATATAC  
ATATGTAAAGTTTTTATTGTCCAAACATGTTGATAGACAAAATGGAAAAGATAAATAGTTTGTACAGTTCTCTCTTCTT  
GAAAAGTATTGCTTTGATTAAAATTCATATTGTCCCAACATTGTTTAAATCATAAATAGTAAAATAAATATGGAACATT  
TTTTTCAATGCAAGTATTTGTTTTCTTGAAGCTTTCAAAGGGAGAGACAAGAATCCCCAGAAATATTAGAAATCTTTC  
ATATTTTATTACAATCACTGTAATCCTGAATATTTTTTCTAGCTTGAAGCCTAAAATTTACCAGTACTTTAATATACA  
AGATGAAAGTTTGTCTTACTATACCCTGCATATTATTGTTTGAACAAATCATTCTGGCAATAGTCATACCTCTGCGT  
ATTATTGTTTCAAACAATCATTTCTTTCAATGACTTAAATAAATAAATTTCTGCTTCTCTTTAAAGACAGTGGGAAT  
AAGTTTCTCTCCTTGAGCAATGGGGCCCTACTCTGCTGTTTTCTTCCCCTTTCTTACACAGACACCAAGTGAAGA  
GCTGAGCCCTCATTTAAGATTGATTCTATATTAGTTTCTTAAGGATTCTTTAACAATGACTGTAAGCTGGGTGGTTTA  
AAACAACAGAAATTTATTCTCTCAGCTCTGGAGGTCAGAAGCCTAAAATCAAGGTGTAGCAGGACTTGTGGTTCT  
GGAGACTTTAGGAAAGAGTCCTTTCCTTGCTCTCTCTGCTTCTGTTGATTCCAGGCATTCCTTAACCTGTGGCATC  
ATAACTCCAATCTGAGTTGATGGAAGTAGAGATCCCATCAGTACATGGTCTTTTTCTCTCTGATTCTCTTCACTTC  
TTCTGTTCTCTCTAAGGGCACTTATCATTGGATTAAACTCCACCCTAATCCAGGATGATTTACCTTGAGATCCTTA  
ATTGAATTACATCTGCAAGATCCTTTTTTCAAATAAGTTTACATTTACAGGTTCCAGATGGACATATATGTTATGGGG  
CCGGTTTTTTTTTTTTTTTTTTTTTTTTTGGAGACGGAGTCTCGCTCTGTTGCCAGACTGGAAGTGCAGTGGCACGATCT  
CGGCTCACTGCAAGCTCCGCTCCCGGGTTACGCCATTCTCTGCTCAGCTCCCGAGTAGCTGGGACTACAGGCGA  
TGGGGCCGATTTTAAATCCACTAACAGGTACCTTGAGACTAGGGCTCACTATACCTTGGTCAGAGATGCTCTAGGCATG  
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GGTGGGCTTGTCTTAGGCAGTAACCTAAGCCTAGAGTCAGGCTACTAATAATCCATTAAAGATGCTGTGTTAGAAAATC  
CTCTCCAAATATGATGGAATAAGTATGTATAAGAAGTATTTACAGATGAACACATTTCCACTTTTATTAACCAAGTGC  
CTGTGTGCTTGTCTTAAATTTTTCACATTTTTCAGACACTTAACATATTATAGAAAATAACATCCAAAGAGAATGATGT  
TTAGCTTTTGGATTCTTTGGGATAAAGAGCAACCAATTTTGAATTAAGAAAAAAGAGCTGTAGATACCACATCTT  
AAATAACTCAAAGTTTTGTACCAAGGCTACTTTTTAAAGTTGAATCAAATGAAATAGGTGTGAACCTATGTTTT  
GAGAGGCGAGAAATGGTTTTTTTTTAAAGTGGGAATAAGTGAGTATTTTTTAAATTTGAAAGGGTGTAGATTGGG  
TTCTCAGAGATTGCTAAGCTGATATCAAAATACCTAAGGACAGGGAGAAATGAAGTGAATTGTGTAATGTCTACA  
ATATTACTTTTCTTGTCTTACTAAGCTAACTAGTATGGATGACATGTAGTAAAGTTATAAAAGGAAATTCATCT  
TCACCTGTGTACATGCAAACTGCTGCAATTTGCAGATTAAGTCAAATTTATATAGAGAGAGACACACACACATAA  
CACACACACATATATTGAAATCTTTAAGTACATCTAATTTTTATGACTCAGAAAAGAAATCCTTATTTAAGCCCTT  
TTTACTACAGCAAAAATGTTAATGTCCATTAAATTAATGGACTTTGCTCTGATTGGGGATGATAATTGCAGAAATGA

Fig. 6:148



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GTAGGGATATATATATGATCTAATATATAGAAATGGATATATAGAATATATATGTATATAGAATATATAGAAATTTCTA  
ATATATAGAAATTTCTAATATATAGAAATGGAGCATTTTAAGGTCTGGAACCTTTGGGGCTGTCAACAGTTATAAGAAAA  
TATAAAGAGAGATATATACAGAGAGAGTAATAACAGGTAGTCCCAGGAGTAGGACAGGAGATTAGTGGCCCAGAATCAA  
TACCATATTTGTTCTATTTTCATCTTTTTGCAAGACAAAATAGATACCCAGGGGGCTGGGGAAGGTGACCAGTAAGTTAC  
TTCCATATATTTCTTTTTCTTTTTCTTTTTTTGAGATGGAGTCTCACTGTGTTGCCAGGCTGGAGTGCAGAGGCACA  
ATCTCGGCTCACTGCGACCTCCACCGCCTGGGTTCAAGTGATTCTCTGTCTCAGCCCCCGACTAGCTGGGATTATAG  
GCGCGCACCACCACCTGGCTAATTTTGTATTTTCGGTAGAGACGGTGTCTCAGGATGTTGGCCAGGCTGGTCTCAA  
ACTCCTGACCTCAGGTCACTGCCCCACCTCAGCCTCCCCATTACTTTCTTCTTTATCTTTTCTACTGTTTAAAGC  
TCAAACTTGTGTTGAACTCCCTCTCCATCAGATTCTGTGTCGCCAAAGAAGTGTCTTGGAGGAGAGTTTCAAATGTCT  
TTCATTTTAATGTCTGGCCTTGGTGATTGTTTAAAGAAGTCCCTGAATGAATTTTGGGTGAAGTCCGGGGCTTAGACTG  
GCTCAGGAAATCTGGCACTGAGCCCCATATTTACTTTGGCCAAACACAATACCTGCTGTGCAGCCACATTCATATGCA  
CTGCTCACACCACGCAGCTTGAGAGCTTTGTCCCTGATTCAAATCTGCTGGGTATTATTAGTCTGAAAATTTACTTTT  
ACACCAAGCATATAAACAATAATGAATACAGTTTAAAGAAATCAGCTCATAACATTTACAATTAATTCATTAATCAAGG  
CAGCTTATGGAATGCCACATGTGAAGTGTAACTTTATAAATATTCAAGTAGTGAACAACAGTGAACAATCACATTGGCA  
GCTTTGTTTTCAGTATAAGTGATGTAGAATATTACCATCCATCAGCTTGAGTTTGTGTTTAAAGTGTGTAACCATGT  
ATATCATCAAAAAGAACTTTTGGTTACATTTCTGTTTCCATATGTTTCCCATTTACCTTCTCTAGATTATATGTGCC  
TTCGTACTAATTAGCACCTGCAGTGAATTCAGAAAGCAGCACTTGAATCAAACCAAGTCAAGCTCTGTGTAAGGAAAA  
AAATACCAAGTTCCAAGATTTCTTGTAAATGGAGATGAACAGTACACTTTGTTGATGTTCTTATTCACATGTGTCTTCT  
TAAAGTATGAGAATTTAGTATATGTTCTTTCAGTATATGCCAATATATCCACATGGGTATTTTCAAATATGCTGCAGT  
GTGCTTGTCTGGTTACAGTTTTTATTCTAGTACAAGATGCAGGATGTTATTCGTACATTCACACTATATTAATTT  
AACCTCCTAGGCTCTGGGAGGAGAGAGGAGGAAAAATTAAGGAGGCCCAAGCTTTGCATTTGAGAGAAAAAGTGAAGTGG  
CTCTTGAAAGATGTCTTAAGAAACAAAAGAGAGAAAGAAAAATAGAGGAAATGTTAGAAGTTGAGGTAAAAGTGTGTCTAT  
GGAGTAAAGAAGAGCATGGAGAGAATACTATTAGTCAAGAGAAACTGCAGCTCAAACACTCAAATGCAGAAGCATCATA  
AACAAAGCTAAATCCACTCTTCTTTAGTTTCATGTGTTTGGTCTATGTAAGCTGAAGACAACTCTCTTTTCCATG  
CTCCCATACCTCATAGAATGTGTTTGGAAAGTATTCTCTCTCTTCTATTTTTCAGAATAAATGGGAAAAATGGTATTA  
CTTCTTTAAATGTTTGGTAAAATGCAGCAGTGAGGCCATCAGATCCTGGGCTTTTCTTGTGGGAGACTGTTTATTAT  
TACTTTGATCTCATTACTTACTATTGGTCTATTTGGATTGTTGGACTTCATGGTTCAATCTTGGTAGGTTGTATGTGTCT  
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TTTGGTTTGGTTTGTCTTCTTCTAGTTCTTTCAGGTGCATCATTAGGGTTTTTGTGTTTTGAAGTTTTTCTTCTT  
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ATAACCATTGTTTCAAGAAATGTTTCAATTTCTTAAATTTCTCTCATTGACTCACTGCTCATTGAGGAGCATATTGTTT  
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TTTCTATTATTCAATTTTTTTAATGTTTTAAGACTTATTTTGTGGCCTAACATGTGGTCTATCCTTAAGACTGATTC  
ATGTGCTGAGGAAAAAATATGTAATCTGCAGCCATTTAGTGAATCTTCTGTAATATCTATTAGTTCCATTGTTCTA  
TCATGCTGATCAAGTCCGATGTTTCTTGTGTAAGTCTGCTAAATGATGTGTCCAAAGTGGAGTGTGGA  
CTCTCCAGCTATATTGTATTGGGGTCTACCTCTCTCTAGCTCTAATAATATTGCTTTATATATGTGGATGCTCTA  
GTGTTGAGTGATATATATTTACAATCTTATATCTTCTGCTGAATGACCCTTTTATCCTTATATAGTGACCATGTA  
GTCTCTTTTATAGTTTTTGTCCGAAATTTATTTGTCTGATATAACTGTAACATTTCTGTTCTTTTGGTTTTCCA  
TTTACGTGGAATATATTTATCTATCCCTTTATTTTCAGTACATGTGTGCTTTATCAGCGAAGTGCATTTCTTGTAGGC  
AACAGATTGTTGGGCTCTGTTGTTTATCCATTCAACTACTCTGTGATTTACTGGGGAGTTTAGTCCATTGATATTTCA  
ATATTAGCATTGGTAAGAAAGAAGTACTCTGCCATTTGTTGTTTTCTGTTGCTTTGTTTTCTTCTTCTTCTTCC  
TTCCTTCTGTCTTCAATTTTAGTAAAGGTGATTTCTCTGCTAGTATGTTTTTAATTTCTTGAATTTTATTTTTTGTGT  
ATCAGTTGTATGTTTTTTGATTTGAGGTTACTACAAGGTTTAGAAATATCATATCATAACTGATTATTTTAAGCTGACG  
ACAAATTAAGTATGATTGCATAACAAACAGACAAGGAAAGAGAAAAGTAATAATTTTACACTTTWACTTTGTCTCTCT  
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GGCGTGATCTGGCTCACTGCAAGCTCTGCCCTCTGGGTTACAGCCATTCTCTGCTCAGCCTCTGAGTAGCTGGGA  
CTACAGGCGCCCCACCACACCCAGCTAATTTTTTGTATTTTATAGTAGAGACGGGTTTACCATTGTTAGCCAGGATG  
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GGCTGTAGTTATTATTTTTGATTGGTTTGTCTTTTAGTCTTTCTACTCAAGATATTAGTAGTTTAAACATCGCAATTAT  
AATGTTATACTATCTGCGTTTCTCTGCATATTTACTATCATCAGTGAGTTTTGTATTTTAAATGATTCTTATTGCTC  
ATTAATGTCCTTTTCTTAAGAAATCCCTTTAGCATTTCTTATAGGACAGGTCTGTTGTTGATGACATATCAACTTTTGC  
TTGTCTCAGAAAGTCTTTATATCTCCATGCTGAAGGATATTTTGTCTGGATATACTATTCTAGAATAAGAGGTGAGAT  
CTTTTTTTTTTTTTTCCACACTTTGTGTATGTACATACCCTCTCTGCTGTGCAGACATTTTGGAGCGCCACTATATAT  
TATTGTTTATTTTCTCTGTTTGTCTTTTAGAGTCTTTCTTTTACTTTTGTGCTTTGAGCTTTGGGAGTTTGAATTAATGCTT  
GAGGTAGTCTTTTGGGTTAAATCTGCTGTGTTCTATAACCTTCTTGTACTTGAATATTGATATAATTCCTAGCT  
TTGGGAAGTTCTCTGTTATTATCCCTTTGAATACACTTTTTATCCCTATGTCTCTCTCCACTTCTCTTAGGGCAAT  
AACTCTTAGATTGCCCCCTCAGAGGCTATTTCTAGATCTTGAGCTTGTGTTTCAATTTTTGTTTGTGTTTTCTTCTTCT

Fig. 6.149

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TTTTGTCTCTTCTGACTGTGTACTTTCAAATAACCTGTCTTTAAGCTCACTAATTCTGTTTTCTCCTTGATAATTCTGCG  
CATTAAAGAGACTCTGATGCATGTAAATTACACTTTCAACTACAGAAATTTCTGCCTGATTCCTTTTATTCAATCTATT  
TGTTAAATTTATCTGATAGCATTCTGACTTCTTTCTCTGTATTATCTTGAGTTTCACTGAGTTTTCTCAAAAAGCTAT  
TTTGAATTTTCTGTTTGAAGAGACACATCTCTGTCTTTCCAGGATTGGTCACTGGAGCCTTATTTAATTTGTTTGGTGA  
GATCACGTTTTCTTGGTGGTCTTGATGCTTGTGCGTGTTCATCAGTGTCTGGGCGTTGAAGAGTTAAGTATTTAGTGT  
AGTCTTTGACAGCCTGGGCTTGTGTACCTGCCCTTTCTTGGGATGGTTTTCCAGGTTTTCAAGAGACTTGGATATTGT  
GATCTAAGTTTTGTTTCACTGCAGCTATGTCTGCATTAGGGGGCACCCTAAGACCAGTAATGCCATGGCTCTTGTCTGAC  
CCATGGAGGTGTCCCCGCTTGGTGTCTTGAATAAGATCCAGAAGAATTCTCTGGATTACTAGGCAGAGATTCTTGTCTC  
TCTTCTTTTACTTTCTACCAAACAAATGGGGTCTGTCTCTCTCTCTCTGCTTGTGAGCTACCTGGAGCTTGGGGAGGGGT  
GACACTAGCACCTTGTGGCCACCACCCTGGGATGGCGTGGGTGAGACCTGAAGCCAACACAGCAATGGATCTCTCT  
CAAGGCTGCAATGACCAGTACCTGGCTACTGCATATGTTTGTCTCAAGGCTCTAAGGCTCTACAATCAGCAGGTAGCAT  
AGCCAACAGGCTTGTATCTGTCCCTTCAGGACATCAAGTCCCCTTTGCCCTAGGAGAATCCAGAGATGCCATATGGG  
AGCCAGGACCTGAAGTGAGAAATCTTAAGAAGCTACCTGGTGTCTATTTTACGTGACTGACCTGGCACCAAGCTATA  
AGACAAAGACCTCCCCGTTCTTCCCTCCCTTTTCTAAAAGCAGAGGAGACTTTCCCTGAGGCTACCACCACCCTAGACC  
TATGGCAAGTGTCTGCCCTGGCTACTGCCAGTGTCTTACTCAAGATCCAGTAGCTCTTCAGTCAGCTTGTGGTAAGTGAAC  
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GGCCTGGAATGGGAGATCCCAAGGGCCTGCTTGGTACTCTACCTACTGTGGCTGAGCTGGAGCTGAAGCTAAAGACA  
AAGTCTCTTTACCTTCTTCTCTCTTTCTCAAGCAGAAGCAGTCTTTTCCATAACTACTACAGCTGGGAATGTTCT  
GGGTCAACCTGAAGCCAGCATTTCTCAGTCTACCCAGGCCACAGTGAGTACCACCTGGCTATTGCTGCTGATTAT  
TCAGGGGCCAAGGGCTCTTTAGTCAGCAGATGATGAATGCTGCCAGGACTGCTTCCCTTCCCTTCAGGCAGCAGGTTCC  
CTTTTGGTCCAGGGTATTTCTAAAATGTCTATCCAGGAGGTAAGGCCTGTAATGGTGGGCTCATGACTCTGCCTTTTGC  
CCTATCCTACCATGGATAAGCTGGTATCCAAATGCAAGACAAAGGCCTTACTCTTCCCTCTCCTCTCCTTAGGTGGA  
GGGAAGGAGTCTCACCTGCAGCTGCAAGCTGCTCTGCTTAGGGTTGGGGTGGGGTGGCACAAGCACTCCTTTGGCTGC  
CCCTGCTAGTGTCTCACTAGGTCAATGTCCCCATAAACAATAATTCTAAACCCATCCAGCATCAGTACTTGGCCAG  
GAATTTCACTCTTTGTGGCTTAGACTGTCTGTTCAAGTTTATTTAGTACCCAGAACACTTTAACTTATGGCAGTGAGGC  
TTGCTGGATTTCAAGTTCTGACTGCTGGAATGGGCAATTTCACTCTGGCTAGGGCTGGTCTATATTCTCCCTCCACTGG  
CGCTAGCTGAGTTCTGCCAGTGTGCTTTCCACTGTGACAGGGCAGCACTGAGTTCCAAAGCAAAGTCCCCAGTCCG  
TGCACCTCTCCCTYCCCCGAGCACAAAGATTCACTCTCTGTGCCACGTGGCCACTGCTGACGCATGGGGGAGGGGTGGCA  
TCGGCCATTCAAGACTTTCTTTCTACCTCTTCAGTGCCTTTTCTCACTGATATATAGCTTAAACCAGGTACAGAGATT  
GCTCACCTGATTTTGGTCTTAGATGGTACCTTTTGTGGTGGATCATGTTAAATTTTGTATTTCTACAAGGAGGATG  
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CCACAAAATTGATAAACCAGACTTCCCTTATCTTACCCAGGTTGTTGGTTAAAATGCAAAATTAGAATTTGGATGTCC  
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TAATCTACCCAAGAGACTATCATCAACATCACATTTCAAAACAACAAAATCAATGATATGGTTACAACAAAATCAGTG  
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TCTTTGTTGAAATTTCAATAACCTCAACTTTTGATTCAAATGTTAGGCCTTATTATATTTAATGAGAATTAACACT  
ACTTAATAATGTTTCAATATATAGAAATGGCCATTATGCTGTTTTCTGTTTAAAGTTTAAAGTTTAAAGTTTAAAGTT  
TTTTGCTTAAATATTTTGAACATTAGACATGTTATATTTTAGCAACCTTAATAATAATATTTTAAATTTTACACTT  
AATATCCTGCCACTTTGAAATATTGACATCATAGAGCTTATGTATGAGACAGGTAATTAAGTAGTTAACATTTAGTAA  
GGATGTTTTATGTGGCAGGTACTATTCTTAGCATTATACCCATTACCGTACTTAAIGTTACACCAACACTATGAGG  
TAGACACTTTTTTAAATATACTTTAAGTTCTAGGGTACATGTGCACAACGTGCAGGTTTGTACATAGGTATACATTGC  
CATGTTGGTTTACTGCACCCATTAACTCGTCATTACATTAGGTATATCTCCTAATGCTTTCCCTCCCCCTCCCCCTC  
CCCCCACCACATGACAGGCCCGAGTGTGTGATGTTCCCTTCTGTGTTGCTCAGAAATGATGGTTTCCAGTTTCATCCGTG  
TGAGTGAGAACATGCAGTGTGTTGTTTCTGTCTTGTCTATACCTTTGCTCAGAAATGATGGTTTCCAGTTTCATCCGTG  
CCCTACAAAGTTATTATCCTTTCCAGATGAAGAACTGAAGTTTCAAGAAAGTTAAGTGGCTTACCAAAAGTTCACAGAC  
CAGGATTCAGCCTGGATAATGTGGCTCCAGGGTCTGTTCCCTTAACTACTATTTTCAATAAAGGACTATCTTCCAAC  
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CAATATATTTTCTAGCTGCAATATAAAATACCACAAAGCCAATTTACATTAAAGGAGAATTGTACATTCAACACATCAG  
CATTTCCACAGGATTGTAGAATAATATATTAGAACAATAAGTTATTTATAATTAGCTTAATAATTTCCGTATTCTTATCTGCAG  
AATGGGCTTGGAAATGGCAGAGATAAGAATTATAAGTTATTTATAATTAGCTTAATAATTTCCGTATTCTTATCTGCAG  
CCATACAGAGTTATGTGAGTTGTGAACTGGGATGAGACATTAAGCTGACAGGGTTACATCTGGATCAGAAACAAGACA  
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TCATACTTATATCTTTGTTATCAGAGAATATTAATTAATAATTTTACCATGTACATAGAAGAAATAGATATATAATATGC  
CTCATTTAATAATAGGGCTATGTTATTATAACAAAGCATCTGCTCTGTCTTTCTCTCAACAGACCAATTAATCTTTGC  
CACATTATTTCTTGGACATTTGAGAGGTTAAATATATGCGCATATACATGTAAACCAATTTGAAAAATAAAGTTCC  
CAATGTTTTATTCTAGTCTACTTTTGTGGCAGGCACTGACCTGAGGGCCGAAGAAAAATAGGGAGGGTCTTTCCACAA  
GAAGGAAGAAAAGGAACAGATGGTGCATGATTACAGGTTTCAAGGTTTGCATGGAGTGTCTTCAAGCACTGATAAAA  
AGTGTCTAAATCAGATTAGATGGAACAATGTCAGATATGGCTTTTAGAGGATGTGAATCTGACCTCAATTTGAGAATGG  
GTAGTAGTTACCTACATAGGGATGACCATTTATGCATAAGTACAGATACAGTTAATCCCACTTTTTTGATAATGAGGGC

Fig. 6

CTGGAATTCTTTTCATATCTAATGAAGAAATAAAACCTCAGAAAGTCATGCAGATTGTATGTCACACATTTTAATTTGG  
TGCCTAAGAATGACTGTAGTTGGAGAAAGGAAGGTGAAAACCTGAATAATATTTCTTGAGACTGAGAATATTTCTATAGCCT  
TACTTTAAGCACACATCTTAAATCCAGGCTAAAACCTCTTAGACTGGCATTGGCAATTAGCTATTTTCATGGATATAAACT  
AAGGAGACTTGACGTTACCAACCTGCTTGGGGAGTATTTTGCTGAGTCTATCCAACCTGTTATCAATTCGAGAACAATAC  
TTTTTAATTTGAATCAACCTGTTTTTTTTTAAAAAAGGTTTTGTTTTTAACATAATTCATCTGTTCTCCCCACAAAAGCCA  
GTTTGTTTGTACTTACATCTCTCTATGTATACATGTATATATTTTTTGAGTCTGCAATATTTCTTGTCAGAATAATTTTGC  
TTCTTTGAATATTTCAACTATTTCAAAATTTACTGGAAGGTAAAAACAACACACACTTACTATCTCACAGTTTCCAAGGGTC  
AGGAGTCTAGGCATGGCCTAGCTGGTCTCTGCAAGGCTGCAATCTAAGGTCAGTAGGGTTTCAGTTTTTCATCTGGAGGC  
ACCACTGGTGATGGATCAACTCCTGAGGTCACTCAATGATAATGAGAAATAATTTCTTGACGGCCGACAGCTGACGG  
TCGCAACTTCTTGGTGGCTGTTACTTATATCAGAGGTTACGTATCAGAGGTTACATTAGCTTTTGAAGCATCTCCACAG  
TTCGCTACTTACCTTGCCCTCGCCATAGACCTTTTACAACAAGCAGCCTGCTTCTTCAAATCCAGCAAGAGAGGAAGAGA  
GTGAGTTTGTAGTATGACTGGAATTTTATATAGCATAAGAGTGACAGGGCATCACTTTTGCCACATCTTATTT  
GTTAGAAGCAACTTAAAGTTTCTTGCCCATATTTCAAGATGAGGAAATATAAACAGTTGTGAATACCAGGAGGAAAGAAAT  
CATGAGGTTTACCTGATATCTGTCTGCCACATCCCCAAAAGAAAATCTATTTTCAAGGCTTTGGTATCATTGTAAAGGTT  
TCCAGATAATCAGGTAGTCAACATAAATAATTTTGAATGACATTTAACTATTGACAAAACAGGTGCCTCTTTAAAAA  
AAAAAATACACACATATACACATACACTTTTTTAAAGCAGAGTCCAAGTGCCAGTAAGCTGAGTATGAGTATAAAGC  
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ATTATTAATAATAACTATTTTCTCCAAATTTATCCCAAAATTTCTCTTTTTTGTGTAATTGATTGTGTATAGTA  
TAAACTATAGGTCACAGTTTGTAGCAACTGATTGAATTTAACTGATTATGTGTTTGGATTCTTATATAAGCTAATT  
TTAATTACATTAATGTTTATAGCAGTTTGTAAAAAGAGATGCAATCGTAACATTTTATCTATATTATTTTAATAAAC  
AATCTATTTTATATAACAAAATCTAATAAGATATTGACAAGAATATTAGGTTATATTAAATGTTTACAAATGGTCTTT  
TAGATTAAATAAGTTGCAATTTGAAATAATGTCTTCACTTTCAAATTCATTTTAAACAATTTGTTTACAGCAAAATTTTAA  
TTAAGCAAGTGTCAAGTATGTACTAAAAGCTTACAACAAGCAAGCAACCAAGTCACATATTATTGAAGCCCTAAATAT  
TCAGGGCTATGTTAGAAGAGTATTAATATGAAATAATGAATAAGGACATTAAAAAGTCAGAGGTTTAAATGATATATTA  
TAGGTTATAAATTTAGGGATCCTAAATTTGGGATTGGAGTCCAGGTCTTCTGTATCACAGTTTACTGGCCTTTCACTAC  
CTCTTGTAGCTCTTAAAGTAATAAGTTGCCCTTCATTTGTCAGAGAGGGTGATCAGTGCCCTGCAAAGTTCTTTTCATGAA  
GCAGTTATAGCTTTGTGTTGATCCATAGACTCTCTGGTTTGTTCCTCCATTGAGACCAGCTAAGCCATGAGTCACAAGCT  
TAGGTTAGAGTTACGCTTGGAAACATGAAACAGAATGAGGTTAATGACACAGATCAGAATCAAGCCTGTGACTTTGTT  
TTCATTAGTATCATGCTCTACATAAATTTGCTAGCCAGTCTGATAGTCAAGAGTAGAATCAATCTATACATTAGTTTTT  
TCTCTTCTCCTTTGACCTCCAGCCGTGTAATGAAGACTTCTTCAAGAGGATGGCCGGGCTGGTGGCTCACACCTG  
TAATCCCAGCACTTTGGGAGCCCGAGGCAGATGGATCACTTGAGACCAATAGTTTCAAGACCAGCTGGCCAAAATGATG  
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GCCTCCAGCCTGGATGGTAGAGTGAGACTCTGTCTCAAAAAGAAAAAAGGAATCTATGTAGTTTTATAGATTG  
CAAAAAATACTATATTTCCCATGTATGTCTGTGACTCTTAAAGTATTTACTAAATGTTGCCAATATCTAGAACCATCTC  
TTAAAAAATATTTCAAAACATATCAGTGTGTTAAACATTAATGGTGAACAAACATGTTAAATGGTGTTTTAAAGTAGGT  
TTTAAACCAAATATATGTACATTGCATTGGCTTGTGACACTCTAGTTTAAATGATCGATTATATGTCTTAAATGTT  
CTCTTATTTCCCTACAGTTTACCTTTTAAAGTGCAGTTGGCACATGTTTTGACCAGAGTTATTATATGTCTTAAATGTT  
TCACTGTATGTCTGGGACTTTTTTTTGTGTTTGCATGAACCTGGCAGCAAATTCAAAACCTTTCTCACATTAATAAGGCT  
ACTGGTTAAATATGTCAAGGGCAGAGTAGCTCATCTTGTAAATACGGTTGTATATACACACACCTTTGTTTTGTTGTT  
ATAGAAATGCTAATAGTATTTCTGTATGACATGTGAGCTTGTGTCATAGATTATTTTCCACTTACCTTAGGTCTTGG  
TGTATTAGGAGGCTGCGAAGCACAGCTTGCAAGGGAGGGCCACCATTTGTCCTTTCTCCTTCAAATATTTATATAAAG  
TTCAGGAAAAAAGCATTCTGATGATTATTTTGTGACTGCTACCTACCCGATTTTGGGGTTTGTGTTGTTGTTGATGAGT  
AGAGATTAAATAATGGAACCTAAGTTGTTATAGATAGTTTGGGAGCTAGGAGATTAAAGACAATAACAGATGTGGGGA  
AAAATTACTTTTGTAGAAATATTCAAGAGAAATTTTTCAGAGAAATAAATGTATGTTTCATGTTTGTGTTTCAATGTTAT  
TTTCAAAGGATTATGTACAGAGAACCCCACTGTATTTTTTCCGGAGTGATGATGTTCTCTGATAATTTATGTCACCAA  
AAAGAAATGTGTTCTAAATAAATGAAAATTACCTTTAGAAAAATACCTGATTTACTCATACTTCTTATTAAGAGTAAGA  
ACGAATATGAGAGGAAAAAGTATAACAATCTTGACATAATGCAATGCCTTAGTCCCTAGTGAGGTAAATATGTGATA  
CATATATGTTTAAATGGCATTATTGTGGAAGATAACAAGAACATGACAGTTATTTATATGCAACTTAGAAAGGATACA  
AATGAATGGTTTTTCTTTCTCAAAAACACTGTAAACATAAGGCCAACCAATTTCTTTTCAAGGCTGCTGAAGCTGAC  
AGCTGCCACAAAGCTTATTTCCAGTGTCTTCCAATATGTAGTGCACAAACAGTTTGTAGTCTCTTAAATAACTAATGT  
CAGTTATTAATATAAACTTTAGAGTACTCTTAATGTGATTGCACCATCTCTTTCTTGGTTTCTGGGACCATTTCTAT  
TCTTCTTCCATGAGACTCACCTTTCTTCAAGTGTCTTTTCTGATTCTTCTAAATTTGTCCAATTCATCTCTCAGACTGT  
TCCATTTCTGCCCTAGYTGTCATCCATTGACTGACAATTCACAAATCTATTTCTCCAGCTTACGCCACAAAAGAGAGTT  
AATATGCTCCACTTAACTCAGAATCTCTATAGAGAAATGTACAAATTTACTCAAGGTAGACAAACACAGTACACTAT  
GTTTTGTACTCCACTTGAAGCTTTAATAGATTCTCTCCAATCTAATCTGTTTGGGTTGCTAAGACCAACACATCTT  
TCAAAACSTGCTCCTTCCCCAGAAACCCCACTTCACTCAATAAGAACACTATAATTTGGGTTGCTAAGACCAACATCTT  
CAATTTCTTTTCTTTCTTTCTTTTACACACATAC  
CAGCCAGTTATCTTTCTAATTTGTTGAAATAGCTTCCAATCTGCTATATGTATCTCCACACTTGCCATTCTACCGTCTG

Fig. 6.45I

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TTTTCAACATGGCAGCCAGAGTATGATCTTCTTAAAAAACTCAGACCATGTCACACTTCTCAAAACCTGTCAAAGG  
CTTCCATCTCATTCTGAATCAAAGTTAAACCTCTTCCCCCAAACACACACACACACACACACACACACACACACACAC  
ACACACACACACACACACACATACATCTTCCCTGGCTTTGTCTTTTCTGATCTCTCCCTCAACTTGCTCCAGCCACACAG  
GCCTCCTAGTTGTCTTGGCCTGCCCCACAGACTTGTCTGACAATCCTGTCTGCCTGTAATGCATTACCTAGCTTCC  
CTCAGGCTCTGTCTCAAAAATCACCTCAACAGAGAGGACTTTCCTGACCACATCTGTAAATATGCATACCTCCCTCTC  
CCAGGCTCCTTACCTTTCCAGGCTCCTTAACCACCCCCCATCTTGTGTTTTCTCCACAGAACTTATTATCACCTGATA  
AAATATGTATATTAATATTGTTGTCTATTGTCTACTTTAAGGATGACAGGGATTTTGTAAATATTGTGCCATAGTCTAG  
CACCTAGGACATGTAGTAGTTATTTCATATGTATTAATAAATAAGTTATATGAAATATATCATTAAACAGCTGATTGTC  
ACAAGTGGGAGTCAATATGTCAATTTCACTTAGAATTTCTGTAGAGAAATGTACATATTCTACTCAAGGTGGCCGAGA  
CTATTCTTAAACCATATTTAAGAAGGTGAAATAGAGATATGATTGATGGTTTTTATTATTATATGTTTTTTCAGTATTG  
GATACAGCASKGCACAAATTATATTAAACTACAATTAATAAATAACAATTTTCATGCCAAAAAACCTGATTTTACTCT  
GATCATCTTCAAGGCTGTGTTCTTGATTCTAGCATTGATATTTCATGTTTTATTTCATTACATTTTATACTATTTTAA  
AATATTAAATATTTAAGCATATATAAGCTATTTTCACAGTTGATTTGCATTAAAGTGAAGTTAATATGTCAATCTAA  
CTCAGAATTTCTAAGTAGAAATATACATATTATGCCTGAGGTAGACAAATACAAATATACTATATTACTATACCATGA  
CTATTAGTATCTTTAATCCCATAAAAATTAATTACCTGACTTATTTCCACCAAGCTCTTCTAATTAAAGTTTTGGAC  
CACAGTGAAGAAATAAGCTTTAATTTATATGATTAATAATTTGTATATCTTCTTTTCTCTCAATGGAAGTCT  
TATGAATGTGTAATTTAGACATGTTTGTCTAGCTCTCACATATATGAAAGGTGTTACTGTTAGCTTTTCTAAACAGAAC  
ATTGTAACAACCTGCCACACCTACAACCCCATTCAGCCAGAAGTGCAACTCCCCAAGCTTTGGGAATTTTCTACTAAAGG  
ACTTGAAAGAGTCAATGTTTCATAGTTAAGTTGGGATTAAGGAACCATCTTGACCACAGATTTCTGAATTTTTTTAGTA  
TATAATAATCATTGGCAATTATCTTGTCCAATACCTTCCATATAAAAAATAAGAAAAAATGAAATATTCCTCATGCCCTT  
GGAAAATTGCTGGCTTAGTTTTCTTTTCCCTGTAATGGCTTACCATCTGGTCAATCAAACTGGGCCAGCCACTTCTCAA  
GGCTGCCACATAGCCTATTGCTCCTTCCATGATGTTTTCCCAATGTTTGTATTCTGGTTCCTCCATGTCAATTCAGT  
TCTCAGCTTGAAGAACACTTGTGAGGGAGGTCTTCTCTGGCACCAATCTAAAGCAGCCTTCAGTCACTACTAGCATA  
TCTCTTATTTTTATTTTTTCAAGATAACATGCCTCACTATTTCTTCTGAAGTGTGTTTTTATGTTTTTATGTTT  
TTGTTTCATCATGGTACATTAAATACAGAGGGTAGCAGCCTTGATTGTTTTGTTTACCACAGTATCCCCAATGAGTGGAA  
CATTTCTGGCAATTAGTTGGTGTCTCAATAATTATGTATTTAATAAATGCATGATGTAATCCTTGTACTTTTTCATATT  
TGTATTAGTGACTAAAAACCATGAGGGGGCTAAGAATGTACAACCCAACAAATACAGACTTTCCACCAGCCACATCAT  
GGGCCATTTAAAAAACACAAAATTAAGTATCTAATTGTCTGTAAGTCTTCAGAGTTATATGCCAGTTGTTTTTGACA  
TTGCCAGACTACTCTTTGATAAAGCTGTCAATACAATTAATTTGTTGATAATATGCATATCTCATCAACCAAGTGCAGTC  
TTACTTTCTGTCATCTGAAAGAAGAAAGACAAGAATGCTTTCTGCTTCCCTCTTGACATTTTCCCTGCCGGAATATTT  
TCCTCAAGTATTTAAGGTGAGTTACATTAAAAATATWAAAAATTAGCTTAAATCTTTTCTTATCAGAAAAATAGCTGA  
TCATATTCAATCAACAAATGATTTCTGAGCACCTACTATATATCAGGCTCTTCTGTCAATGGGATGGTTTTCTAATGGA  
AGGAGCAGATAACAAACAAATAACTAGACGGCAACATTACGTGTTATTATATCCTTACCACAGTCTTTTGATGTAGGA  
ATTATCATTCAAGCTCACACTGCCAGCTGCAGAGTTGGGATTTGAACATAAATTTCTATTAGTTTAAAGCCTCTCCCT  
TTGTACTTTATTGTTTTGGAAGAAAGATATTCTATGAAATTTAAATAATAAATAACAAACCTGTGAGTCTTATAGGGCTT  
TAAATCATTATAATTTATACAAAAATAAATTATCCATTAAACAGAGAAATTTTCTATGTTTTGGTTCATAGAAAC  
TAAGTGCATTATACATTACCATAATACATTACTTTAAACATCTAAAAAATGAATTATAGTATAAATTAGACCTCATCAA  
AAGATCATTCAAGTTACATAGTTTATCAGTTATTGTCCAAAGTGTCTCAGTAAGACAGCTCTAATGCTTTTAAAGTGTT  
TAATATGGCAGACATTAGATTCTGGTAGGTGGATAAGCCAATCTTTAAGTCAACCGATGCTCCTGTAACGCCAGTGG  
GTTCAATTTTGCTCTGCCCAGACAGAGCCAATTTATCAAAACAAACGAATTGCAATAGAAAAAGTTTAAATTCACGCAG  
AGCCTGCTGAACAGGAGACAGAGTCTTATTATTACTCAAATCAGTCTCTCTGAAATTCAGAGACTGGGGTTTTTTAA  
GGAATAATTTGGTAGATAGGATGCCAGGGAGTGCTGATTGGTTCGGTGGGAGATGAAATCATAGGGAGTTGAAGCTGTCC  
ACTTGAGCTGAGTTGGTTCTGGGTGAGGGACACAAGACCAGATGAGCCAGTTTATCAATCTGGGTGGTCCAGCTGAT  
CCTTCGAGTTTCAGGGTCCAAAAAATATCTCAAGCACCAATCTTAGGTTTTTACAATAGTGATGTTATCCCTAGGAGCAAC  
TGGGGATTTTTAGAAATCTTGTGACCTCTAGATGCATGATTCTTAAATCGCAATTTCTAATCTTGTGGCAATTTGTTAG  
TCCTACAACAGCCAGTCTGGTCCCCAGGCAAGAAAGAGTTTGTGTTTTGGGAAAGGGCTATTATCATCTTTGTTTCAAAG  
TTAAACTATAAACTAAATTTCTCCCAAAGTTAGTTTGGCCTATGCCAGGAATGAATAAGGACAGCTTGGAGGTTAAAA  
GCAAGATGGAATCTGTTAGGTATATCTCTTTCTCTGTCAATAATTTTTTCACTGTTATAAATTTTACAAAGACAGTTTT  
ACTCCTATGATAATCCTTCAGTTAGTTCACTGTCTAGTTCTGGGAGTCTGTTTTGTGGATCCTAACCTTACCCCAAGG  
ATTCTACTGCATTGTAAATCTGACTTTACATTTAAGACATGGAGTTCTTTGGGGCAGGGAGATAAATATCCTATTTT  
AACTATCAAGGGTTAAAGTGCTTTCAAGGATCTAGTGTCTGGTGGTGATACCAGAGTCATCAATTTCAATTAACAGCA  
TCTGTTTGTGTTGTTGAGAGCAGGGACTGATAAATGAGGCACCTTTTGTATTGTGCACTGGGTATAAAACAGTCAAAAT  
GATGCTTATAAATCAAGCTTTTCTCCCACTGAATCAGCCAACAAGATTTTCATACAACATTTAGACCAGAGTAGCTG  
ATGCTTCTGTTTTCTTGCAATTTTGTCTGGTTTGGGATCAATTTTGTAGTCATGGATGTAGTTATAGCTCTTTGGTATGTG  
AACATGAGAGAGGTGTAAGCTCATAAAATAAGAAATCTGTTTTTGTAAAGTAGACGATGTGCAATTCAGAAACAATG  
AACCATATCAACTAAATAATGGGTTAAATCAGTAGAGACTTTGTCAATCTTGTATTGATTTAATCATTTCAAATTTATT  
TATTCATTGTCTATAGGTATGCTAGGAGAAATAGTTGAATCAAAAAATGTTCTTACACTCAGGAACCTCACAATCAGGT  
GCAAAAAATGAGACAGGCATACATTAATAAATTAATGACAATTAAGAGGCGGCAGGCAGCTAGGATAAACTG  
CCATATGAATAATAGCAACAATAAAGTAGATGAGCTCCAAAAAGGAAAGATCGAGGAAGGCAGCATGGGAAATTTGA  
CATTGCCTTGTGTTTGGAGTTGAACGAGTTGGAAGTGAATAAGTAGAGGTTTTTCCACGTTGCAGAGAAGTACGATGGT

Fig. 6. 152

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GGGGGGTATATATGGGGCATTCAAAATGCATGAAATAGGAATTCGTTTGTCTATCTTTAGGAAATTTTCAAGAAGTAGTTT  
CTGACCATTTTATGTGGGTCCTTTTATTTTCAAGTTTGTAGACATTTGGGATTTTATCCTGAGAATAATGGGGAACCATTTGAA  
GGTTTTCTACAGGGGACAAGGATAGCATGTTTGAATGACTAACCAGATAGAAATATGCACAATTTCTTGAAAATAGGGA  
GAACGAGAAAGGAAGAAAGCAGAACAGTGGTCTTGACTTTAATGTGCCACCTAAGGGCMAGGTGCAGTGGGTACACCC  
SGTAATCCAGCACTTTGGGAGGCCGAGGTGGGTGGATTGCTTGAGTCCAGGTGTTTGAGACAAGGCTGAGCAACATGG  
TAAACTCCATGTCTACAAAAAATACAAAAGTGGTGGTGTGTGCCTGTATCCCGCTGCTCGGGATGCTGAAGTGGGA  
GGATCGATTGAGGCCACAACATTGAAGCTGCAGTGAGCCATGATTGCGCCAGGGCACTCCAGCCTGGGTAACAGAGCAA  
GACCCCTTTGTCTCAAAAGAAAAAATCCACCTAAGGAGCTTGTAAAAATTGCCGATTCTCTGAACCTTACTCCAGA  
GATTCTGGTTCAGCAAGTCTGGAGAGGACGCATAATCTCCCTGTTAAGGGTTAGATTCTAAATAAGTGGTCTTCAGGCC  
ACATTTTGAATAATATACTAAATTAGAAGGCTGTCAATATCTAGGAGTGAATGGTGAAGGTTTGTATTATAATTTTG  
GAAGCAGGGATGAAAAGAAAGTGATGGTTGGTAGAGATATAGTGAAGGAAGAATTGATAAGACCTAGAAATGTTTGGGT  
ATAAGAAATCAAAGGGAAGAAATAGTTTAAATGATATTAATGTATTTATCATATTTGATATTTTGTAAATGTAACTG  
GATTGCAAGTCACTTAACCTTACTTTAAAAGCCAGTGCAAATWAAAATAATGTACAAATTGTAAACCAAGGTTGAAAA  
TATAAGATCAAATGATGGGTATGGGAATATCTGTAAATAGGAAAGAAATTCATAAAAAATTAAGCTACCACCTTTGTGTT  
ATTTCCAAGTGTATTCTAATAATTAGTTTTCCTCATCTGGATTAAATTAATTCTTAGTCAAGATTTCTGGATTCTTT  
AATCATTACCTTTTGAAGTAGATGTAGAATTCTCAATTATCTAAATCTTCCACATTTAGCTGAGAGACCACTCTAGG  
GAATAATTAGAGTATTTTTCATAGTTCCATCAGATCTGAACCCCAATTTCTTAGTTAAGGCACTATAGCTATGGGAATT  
ATAGTCCATAGTGAATAAAATATACAATCATGGACCTTATTTTGAATAGCTTCCAGAACCAACATATGCCAACATCTTG  
AGGAGGTTATTATGGCTAGGTTCTAGCTTGCATCACTAAGTCACTAAGAAATGGGAGACAAAAGGTATAAGGAAAAGTTT  
TCAGTAGAAATTATAATAATTGTGAGAGGAATTATTTTCACTCTCAGGTTGATGCAAATTTGGGTACAGTGGATGCTGCT  
TCCACTTGTCTTTCGGAAGCCGTAACCAATAATCAAAGCAAGCAACTTTTCCAAAAGTAATTCATCTTGTCTTTTAAA  
AAAAAGTTTGAGTTTATTTAATATCTTCATTTAGACATGTGAACAAATTTGTTTGCCTTTTTCATTAATGACATCTGAGT  
ACTTGTGTAGATTGCTTTCATAGTTTATTTGAGGCATAATGCCTCAAATAGGAACTGGAAATGTTTCTTTTAAACAT  
GAATATTTGCCATAAAATTTGCTGAAATTACCAAGTCTTTAATTTTCATCAACAGAAAGAAATAGGCAAGAAATTCAGGCAA  
ATTGAAGAGTTAAAACGTTATGTATAGGTGAGGTTTCACTTCACTGCAATAACTGTAAATATCTTTTATGTTTAAAGG  
GATGTTTGGTTTGAGAGGGAATGCTTTCACCTTCTGAAAGGGAAGAGGGAGGTCAAATAGTGACAAAAGAAATGAGGACT  
TGGGGGAAGTTTTCAGCTAAGAGGACAAGCAAAAGAGGCTGAGAACAAACAGCAATTTGTGGTGGGCATGTTTGGGAGC  
TGTAAGAGAAATAGCTCTTGTCTTGGAGTAACTTCTCAGTCAAGCACTAGGTCCTTGAATTCAGACCAGCTCTCATCT  
CCTTGGTCCACTCTAGGGCTGATGGAGGCTGCTGAAATCATCTTTTGTCTACATTAATACTCATTTTTCGCTCAAAGATG  
ACAAGGAGTATTTAAACGCAGAGAGAATGTTATTTATAAATGATGATTGTTTCTGTATAGAACTTGCCACATAGTATTT  
TCTCTTTTAACTTTTATTTTATTTTGGTTTCAAGGGTACATGTGCAAGGTTTGTATATAGTAACTGTGATGAGGTTT  
TGTTGTAACAGGTTATTTTATTTTTCATCACCCAGGTACTACGCTTAGTACCCGATAATTATTTTTTCTTTTCTCCCT  
CCTCCCATCTTCCACCATCAAGTAGATAGACCCTAGTGTCTATTGTTTCTTTCTTTGTGTCCACGAGTTCTCTTAATTT  
AGTCCCACTTATAAATGAGAACATTTACTAAATGGATCTTTATAAAAACAGTTTGGCGACCACTAATGAATAAGAAAA  
TATTAGAATAAAAAAGCTCAATGTCACTGATCATTAGAGAAATGCAATCAAACCACAATGAGATACCATCTTACTCC  
AGTCAGAATGGCTGTGATTAAAAAGTCAAAAAATAACAGCTGTGGCAAGATTTAGGAGAAAAGGGACCACTATTCGG  
TTTTCTGTTCTGCGTTAGTTTGTGTAAGGATAATGTCTTCCAACTCCATCCGTGTTCCCGCCAGTGACATTATCTCAT  
CTTTTATGGCTGTGTAGTATTTCTGTGGAGTATATGTACCAATTTTCTTTTACCAATCTGTGATGACAGGCAATTAG  
GTTAATTCATCTCTTTGCTATTGTGAACAGTGTGCAAGGAACATTCACGTGCATGTGTTTTTATGGTAGAACAATTT  
ATATTCCTTTGGGTATATACCCAGTTGTGGGTTTGTAGGTTGAATGGTAGTTCTGTTTTTGTCTCTTTGAGAAACCAT  
CACACTGCTTCTACAATGGTTGAACTAATTTTCACTCCCATCAACAGTGTATAAATGGTCCCTTTTCTCTCCATTCT  
GACTGGAATAAGATGGTATCTCATTTGTGATTTTGTGATTTCTCTAATGATCAGTGATATTGAGCTTTTATTCT  
AATATTTTCTTATTCTTAGTGGTCAGCAAACTGTTTTTATAAAGATTCTGTTTAGTAAATATTTTAGACTTTGTGAGAT  
ATACAGTCTCTGTCACTCACTCTGCCACTGAAGTATGAGAGCAATCATTGACATTTACTCATGTAATTACATGGGT  
TTGGCTATGTTTCAATAAAACTTTATTTTCAAAAAACAGATAGCGAGCTGAATTTGTCTAATAGCCACAGTTTGCCTGAC  
CCTGTTTCACTGCAGTATGTGCTATTTCTATTGTGAATGAAAAGGCTAGCTTAGAAGGCTAACTACTTTTTCTGGCTTA  
GGAAGCTAACTACTTTCTCTAGCATAGTTTCTTAGAGAAATAGGTTCTCGATTAAAAATAGATAGGAACCTGACCCACA  
CTGTATCTGGCAAATTTTAACTAAAGAAATGTAAAACGCTTTGGAGGTACCTAAATAGTGGCTAAAAATTGAGTTCC  
AGTGTCTTCTAATATGAGATGAGGACACATTTTCTCATCTGTAAATTAGGAATAACAATACCTTCTTCATAAAAAGG  
CCATGGCTATCAAATGCCATCGCATAAGTGAAGTGCCCACTGCAGCAGCATCTGACATAGTAGGCCCTCCAGTAAACAT  
CTGTTTCTCCCTTCTCCATTGCCAGGAACACATATGGAATAGAAATAAAAGTAGAAACAAAGGAGAGAAGAAGGCAG  
AATGATTTTCAAGTTTAAATAACAGAGCTCTTTATCTCACTAAATATTCTATTGCGGCTTAAAGGCTAAAGCCCTATT  
ACTAGTTCAACACAGTTTCAATTTTCAAAGCACTACCCCTGTGATGGTACTGTGGGAGTTCTTGGTTTTTTTACTCCC  
CTAATTTCTAAATATATGTATAACATCATATATGGAATATAAATGTATATATGCGTGTATACTTAGGTATACATG  
CATTTATTTATGTAAACAGATATTGTGCTGAGCATTTTACATCTATTATCTCATATAATCTTTACAGTAACATTGCAAAGT  
TGATTCTGTTATTTTTCATCGATGAAAAAAGTACAGAGAGGTTAATGTAACCCATCTGTGGTTACACATCTAGAAAGTC  
TTGGAGCTGAACGGAAGTCAAGGCGTTTCTGGCTGTAATGCCCATCTCTTAATAACCATGATAAATGACATACCTTT  
AAGAATGAATAATTTTAACTGTGATGAGACTAGTATTTGGTTTATGATTCTCATCTTCTAAGTTACTTGACCAACATC  
AAAGAAGAACTGGGTCAATTAGTCCAATCTGTGTTTATAAATGGCCCAATTAGTCCCACTTTGAATCTGCACAGGGA  
CCACTTGCACATAAATCTAGATCTACATTTGCCACGCTCCACAAGCATTCTGAACAATTCAGTGTGTTCAAAAATGAG

Fig. 6.153

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ATTTCTATTATTTATGTCATGAAGAAAATATGCTGTTTTCCATGCACTGAGCCAGGGGAAAACACTACTCAGCCTTGGTAA  
TATTAGACCATGGATCTTCCATTTATTTTAAATGATAGTGTCTGCTGAGGAAAATAATGGTTCATATCCTTCTTCTCC  
TTCCTCCAAATACTATGTCAAACACTACTTTGATTAAAATAAAATAAAATCTTGTATCACTGTGCCAACTCTGTAAGAAGA  
CAGAGCAAGCAAGCAACACATTAAAACTAAGGTGTTGGAGAGTCTGCCGTGACTTGTGAATTCTGTATATTTTTTCC  
TTTCTGAGGTTCTTATTTCTTTTCTTTACTTACCAAGTTACTTGGAAATTTAACAATTTAATAAAAAATAACAGCA  
CTGAGTTAGTTTTATGAGTGTTCCTCCAGGTACCTATCCTCTCTCTTTTGGAGAGAACATGTATTCCTTGAGGACAGATTA  
AGAACTAGTCTTCCCTTAATGCTGGGAGCCTCTTTGAAGTCTTATTTACTTCAGATCTTAAGGGAGAATTGTGGTACG  
CTGAAAAGTATCACATTTGTTATCACTTGAGGAAACACCAATTTGATCTAATGAGCTAGACTTTTTTCATCTTTCAATTCA  
TGACAGCTATAGCTACATTAGAAATTGCATTTTGGAGGTCTTGGATAATTATCTAAAAATATTACAAAACCCCTTGAG  
GCTAATGAATTTAACTTGGATGGCTAATCCTAAAATGGCTTTATTCCAGCAAAGTGGGAGAGAACTCCCTTCTTCT  
GTTTATTTAAGGTTTCTAGTTTGGGGTCTGTTCTAGTTTGGAGTCTTGGAGTTCCTTTCAATGTGTTTCCATAATAG  
CCTGATTGAGGAGTCGGGGAGAAAGAAAGAAACAAAAGAAAATGCCCTTGTTTATTTTATTACATATATACATACA  
TATCTATACATATGTAATGCACATGGTAAAGCATAGTATTTTGCACAAAATCTTAAGTAAAGACAGACTTGGGTTTA  
GATTTATAATAGGATTTAGTAATACTAATACCAATTAACAGCAGCAAAATCTTGAGTGCATGAAATGGATTACTTTA  
TGTAATTTCTGCAAAGTCTTATCATGTATATTTTGTCACTAGTTTATTTTACAGATGAGGAACTTAAGGCTGACCAAG  
CTGTAAAACCTTGGCCAAAAGTCTATGCAATTTTGGAGATTCTGATTGCTCTGTCTGGTGTCTATACCCATCTTCTTA  
AATAGAACAATCATGAGGAAATGACAATGTCCACAGACATAAGACACGCTTGACAGAACTAGGTATTGGGACACTGC  
AGAGAGGCAGGCAGGGAACACTGGCCTGAAGTATGAGCTTTGAAACTGGCAGTCTTCATTGTAATCCTGGCTTTGCCCT  
TGCTGTCTGTGTCTCTTGGATGAGTTACCATCTTCTGTGTGCTTCAGTTTCTTTATCTGTACAATCGGGATAGTAATA  
AGTAATTTTGGAAACCACTAAAATAATGCCCTGGTCTCATAGTAAACCAATAAGTAGTAGTTGTCAATTTATTAGGT  
TGGTGCAAAAGTAAATGTCAGTTTTTTTCTATTACTTTCAATCACAAAATCGCAATTACCTTTACAACAAGCTAATAG  
GTATCCTGCCTGCTCTGTCTTATCCCTTTACCCCTTTAGAGCAGCTAAACATTAGACGAGTGCCTCATCCAGAGATT  
TTGCAATATTTTATACATCAGAACAGTTTGAAGAACCTGAGATAATATTGAGAAGATAGAGAATTTTTCTCTGTCACTC  
CCCATCTTCTATTTTAACTAGTAATCTCTCTCTTGCCTGCAACCCCGCTTCTAATCCTTAGGCACTGTCTCTGA  
GTTCTTGTTAGTTATTAATAATCTCTGTGTGATGTTGCTTGATAGCTACAATGTTAGATGATAAGGAATATTATATTT  
TAAAGTCAGATATTTGAGAAATAAAATGCAATCTCACTCCAAGAAAAGTTTCTGCATATCCAAAGGATGTGGGGGATA  
GATATTTAGGAATATATGTGTGCCAGGATTGGGCACTCGCAGCCAAAGAAATGGAACAGGTTTACCTTGGGATTGAGAG  
GTACACACACCACTTACAAAATTTTATCTTAATTTGCTATTAACCTTTATTTAACTATAAACTTTAAACCTTAACT  
TTGAGAGGAGGATGAATTTTGTTTTAAAGATGTTTGTAGTTATTTTGTAGTCTCAGAGTTCTATTTAGTTCCCAAAATTT  
TGTGCTACAACAGTTTAAAGTCTGCCAGTTATTTAATCTGGGGAGATTACAAATACAGTGTGACGACTGGCCTGC  
AGCTCTCTCTCTGAAATGAGATATTCAACTCCACATGGCTTACTGCCTCTTCTATCCCCTTAGTTTCCATCTCTTC  
TGCTGGTGATGATGTGAGTTCCCTACCTGTGGGGTACAATGCCCCTATGGTTTTTCTTATACAATATTGAGCATT  
TAACATATGTAGGTATAGAGCATATAATATATGAAGTGAATATTATCAATATGTTGTATCTACCTGTGGGCTCCTTC  
CTTCTCTCAGTTTACCATATTTTCTTCCACTCACTGGGTAACAACCATCTGAAATTTTATGAATGTCATAACCTTTC  
CATTTTTTAATCTTTTAAAAAATCATATATGATGTATCTCTCTTAAATCTTGCTATGTAAGTATGGTCCACAGATCTAT  
GCATGAACATTGCTGAGGCTTATTAGAAATACTGAATTTAGCAATTTGCCCCAGACCTACTGAACCAAAATAGTATT  
TTAACAAGAATTGCTGTTGATTTACAGGCACATTAGTTTAAAGAAGCACTACACCAAAATATATTATTTGTCTTCTTAG  
GGGTTGTTTTGTTTGTGTTTCTTATTTGTTTCTTGTGTTTTTGTAGTGTATAAGAATGACATTCTGTTTGTGTTCTTC  
TGCTACTTGCTTTGTTTGTCTCAACAGGGCATTTAAGATTATCCAGGTTGCTTTCTGTAGTTGTTTATGGCTTCTGA  
TGTAACATTGTGCTAATAGTCTTCTCTGCTAAACAGTTAGTTTGTGTTTCTAGCTTGTGTTATAGTGTATAATCCTGCTA  
TGAACAGTCTGGTGATGCTCCGT  
GTGTTTGCATGTAAGACATTTTCTGTGCTGTGTATCCAGGAGTAGAATTATGAATTGTAGTGTATGTGAATGTTTACCT  
TTACCAGATAATGGTAAATGTTTTACCACCAGCAGTATATGAGTTTTCATTGATCTACATCTTTTCAAATACATGGTG  
TCATCAGGCTTTTTACTTTTTGCTGACCTAGTGGACATAAAATGTCTCTCACTGTGGTCTTTATTTGCATCTCCCTGA  
TAACTAATGAGATTGGTCAATTTTTTCTATTTAATTACCATCTGTTTTCTTTCTGTGACGTGCCTTTTCTATGT  
ATTTTGACTATTTTTTCCATTTTCTCTCATGATTATAGGAGTACTTATTTTGAATAGTCTTTGAGAGTTACATGG  
GTTGCTATGTTTTCTTCAATTTATGACTTATCTCTCACTTTCTTGATCACTCTTGAATAGAAGTTCCAAATGTTAGT  
ATAGTTTATCAGTCTTTTCTGCTGTAAGTCTTTTGTATCTTTTAAAAAATCCTTCTTGCATGAATACTATAATACTAT  
TCTAATAATTTTCAAGTGGATGGGTGGTTTAAATACATAATTAGAGTCTTAGGATGATATTAAGTAAATATAACAGCTC  
TTCAACTGGTATTCTTAAATAACTCATCAATTTGGCATTTTTACTTTTCAAAAGGCCATGTTTAAATTTCTCCATTTGTCA  
TCCAGGCAAGATCAAGTTTGGACTTAGCTTGACGAGGCTCAAATCCAGGCTTTGAAACAGCAAGTATCTGACCTTA  
GTTAAGTAATTTGCTCCCATAGCTTCACTTCTCATATGTAATAAGTTGCTGCTACAATCTTCTATTTTAAAGAAAT  
CCGTTAATTACAATAGTTGAGTCAATTTAATGGGAGCTTTTAAAAATGAGAACTATTAGTTTAAATTTACATTTTCTTA  
AGTGATTTAAAAATGCATACATTTTGCCTTACCAATGCCCTACCTACCACATTACTTTTCTATCTCAAACATATAAGAT  
TAAATCTTTCTACATTAAGAATCTAAAGATCTTTATACAGTTTGTAGCTTTGGTAGTTGGGCTAATTTCAAAGTGAC  
AAGCTCTTTCTATGATCTCTTTTACATTTTGTAGATCAAGAGTGACATTTCAAGGCATATTGATTCAATTTTATAAAAA  
TATAATTATCAACCACAAAAGTTAAACATCTCTWAAAAGTTAGACAGATGGACATTTAGCAACTG  
AGTAATCATCTTCAAGTCTCACAATCTGTCACTTTGAAAGTTCTATGACATCTTCTGAGGGATTGGTAAATATCTAC  
TCATTTTAACTGTATTGCTGCTGTGACTGGCCATGATTTTATAGACATTTCAATGCTAAAGCAATATGCAGCTTCCA

Fig. 6. IS4



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ATATCATTCTTATGAATATCTTGTGCTTTTCAATAAGATATGGAAGTGCAGTTTTCTCCCAGGAAGAAATATTTTTT  
CACTTATAGTAAATCTTTGTCTCCTACCCATGTTTTAATTTTCTTCTATATACAAAATAACTTAGCTCTTCAATGAGG  
TATTAATAATTATAGTATGAACTTTTGAAGACATTTAAGTAAATAGTGTATATATATATATGTGTGTGTGTGTGTGT  
TGTGTGTGTGTATATATATATATTTTTTTTTTTTGTATGGAGTCTTGCTCTATTGGCTGGGTTAGAGTGCAGTGGTGT  
GATCATGGCTCACTGCAACATTCACCTCCCGGGTTCAAGCAATTTTCTGCCTCAGGCTCCAGAGAGGCTGGGTTACA  
GTTGTGCATTACCACACCTGGCTAGTTTTTGTATTTTAGTAGAGACAGGGTTTACCATGTTGGCCAGGCTGGTCTTG  
AACTCCTGACATCAAGTGATCCGCCACCTTGGCCTACAAAGTGTGGGATTACAGGCATGAGCCACTGCACCCAGCCA  
AATAGTCTTAATTTAGTTAAGTGCAAGTTTCATCAATCTGTAGCTATATGAATGCAAGTCAGAAATCCAAAGTCTTAC  
CATGACCAGCATGGACTTCTTGATCTGTCTATTTCCAAACAGCTTTCACCTGACTTCCAGGCCACTGGTTGATTT  
ACTATTCCTCAGCCATAACAGCTGGCTGCCATGTCTTTGCACCTGATTTTCCACAGCCTGGAGTGTGGCTTACTCC  
CTTGCTTCTTCCAGGCCACTCTACCATTTCTTTTGGATAAGCCTAACTTGCCAGCCAATGCAAAATAGCACTCCCAA  
ACATCACACTCCAACTTCTTAATTTGCTTCAGTTTGTCTTCATAACACTGAGCTCCTGTATCTGATATTATTATTATAT  
TTCTCTAATTAAGAAATGGAATAAACACTTAAGCATCTATATATATATATATTACCACTTAAGCATATATATATATAT  
ATTTACCACTTAAGCATGCATATGTATATATATAACACTTAAGCATCTATATATATATATATTACCACTTAAGCATATATATATATAT  
TTAGAAGAGGAGGGCCAGAATTTTTCTTTATTGACTTTTTTATCTCCAGAACTTAGGGTTGGCACATATTAAGTGTCTCA  
ATAAATATTGGTTAAATGGCTGAATTAATGTTGAGACAATCAGGTGAACAGGTGTTTTCTATGTAGAGTTAAGAGTCCA  
ACGGGCTATTCTCAACATTGGCAGAGGACTAGCACAGTTCTTTAGTCCCCACTGAAAGACTCATCCTGATCATTATAAT  
GTTAAATGTGATGAAAAAGCATACTGTTGCAAGAATTAATAAAATAATGTATGGAAATGTTTGGCAGAAATCAGAA  
TATCAAAATGTTAATGTTCAATAAATGCAATAAAATTAATTCATCTGAATCAATCCTTACCCCTTCTTTCTGTAAAC  
AGTGGAATGTTGGCTTTTTCTAGTTTGGGCAATGCTTCCATCTGTGCCCTGCAGTTCAACGCCCTCAACCCCATC  
TTCTCAGGGACAACATATTGTTATTTCTTCTCTGTATATCTGTTATTTCTCCCTCTCTTGTGATCTTACTCATC  
AACTTTAAACCTGCTCCACTCAGAAAGGGGTCCTTTTGGATAAGTATACAAAGTCACTACATTGCCTTTAGGGGACAC  
TGAATAAGAAGTAATCTTTATCAGGCTTCTGCTTATTGCTCAGCTGTCTTGCAGGTTTATAGACTTATTGCCATTT  
TCTGAATGTCCAATGCCCCACAATATCTCTCATCTCTAAGTTATTGCTGCGCCAGTCTCTGCCCCAAATGCTTTACT  
CCTTCATCTCCCCAAGACGTACACACATTTCATGCTCACACATATGTATTACACATACTGAAAATAGCTAATTTGACATG  
TGTACTTGAGGTCTTGGCCTCAGATTAGATGCCACTCTCCCTTTGGTGAGGACTCACTGAGCTGTAAGGGTTGAATGTT  
CTTCCAGCAGACACTACATATCCGCATCAGTATATCTCTTCCCCCATCTTCCCAAATTATAGTTGCTTATTTATTTAT  
TTCTCTGCAAGACACAAACTCCTTGAGGATAGTAATTTTTTGTGCATGTTTGTCAATGCAGTATCACAGTCGTCCTG  
AGAATTAGCACACAGTAGATAAGCAATATTTTACCTTGAGCTGACAAGTGAATGGTATCATTAGAAAGTTACAAAAT  
TGATTTTGTGATACTGAGCTCCAAGTGTGAAATTAGTGTGCTGCTAAATTTGCATTAGTGTGCTAGTCAAGAGACA  
AGGATATTCAAGTACAGCATTTCTTAGTTTCATATTAATTGCATATTTCTGTTTATTTTATAGACAAAATTAAGT  
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TATTATCTTGATATGATAGGTTTTTACAAATTTAAAGCCTTTTATATATCTCAAGGAAATATCCTAAGAACCTGTT  
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TTTGTAAACATATGATGATGAAATTTCCGATTTTAAGCTGACTGTTGGGCATCAAGATGACCATCTTTACAAATGAA  
GTAGCACTCATGCGCTCAAGTATACATAGAATGTATGCAAGTGAAAGTCTCCTTTAAATCTTCTCCCATGACTTGA  
GCAACGAGAACCGTGGACACAGGGAGGGGAACATTACACACTGGGGCTGTGCGGGGGTGGGAKGCTGGAGGAGGGAT  
AGCATTAGGAGAAATACCTAATGTAATGACAAGTTAATGGGTGCAGCAAAACACATGCTATACCTATGTAA  
CAAACCTGCACATTGAGCACATGGACCCCATAACTTAAAGTATAATAAAAAAGTAAAAAAAATCTCTCCCTCCCAT  
GCCAAGATAGAAATGGACCTTAGTTACTGCCACTTGCCATCTCACTCTGTGTTCTGGATAGAAATGGTGTCTGCTCTC  
TGCTAGCTGTTAATTGACATCACTTCTGCCAGAACTCTCCATCATTATTGACAAGAAATGTTCTCCCTTGTAAATTGCCC  
AGCAGCACATTGAGTGATTGATTGTATCTTTTGGACAGATTGAAATGCATTGCGAGAAAAGGGTGGGGGTGGTAATGA  
CATAATGCATGGTAATGACACCAACTAAGCTTATTTAAGTTTGTTCAGGAAAAGATACTGATCATTTACCTGATTT  
TTACTTTTATATAGATGTGCTAATGGTAAGTAGTGTAGCTTTCCAGGATGTCCACATTAACCAATGCTTCACAAA  
AATCTCTCTCAGACTGTGCCATAAACTCCAAATCTATGGTCAACTAGTGGGAAAAGAAATGGATAAATTTATTTAA  
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AACTAGAGTAATACATAAAGTGATATTTTTCATGAGAATTTTGTCTTATAAGCTGGACTTCCCTAGAAGTATTTGAGACA  
CAAGGGCGAGTCAACTAATAGTATCTACAGTGTTTTTGTCAACCATTTAATGAGAGAGTAAGTCTGGATCAGTAGTTGCT  
GATGTATGAAATCACATGAAGAGTTTTTAAATGCGGATGCCTTGATCCTCCCTAGAAATACTGATTTTATTTGTCT  
AGGCAGGGTAGTGATGATCAAACTTTTACTGAAGCAGCATCTTCTCACAAATTTGGTAAAGTATAAAGCCTCAAGCC  
CTATCCTGCTTCATGGAGCCTGGGTCTTGTGTGCTGGATTAGCTCTCCTGGTGATTCTGATAACATCAAGTTTGGAA  
TCACTGCTCTAGGTTCAACATCAGACATTTTTTTTCAAGCTCCCCCAGGTGATATTCCCTAGGTACAGCCAGACTGGG  
AACTGCTGATTAACATGATATTTAGGATACTTCCAGCCTGGCAGGAATAATAAAATTTGCTACCTTTATTAACATTC  
ATTGCATATAAGGCATTGTGCTAAGTATTTTTCATTAATAATGCAAAATTTCTGTGAAGTAGGTAATATTAGTACTA  
CTTTGCATATGGGAGACAGGGATGTTAAATAATTTAGCTAAAGTAAATGAGGTTAGGTAATATTAGTACTA  
TGTAACCTCAAAGATCACACAAGAACTATTACTATCAATAACATTTTGAATTTAAGTTAAATTAATAAACTCTACAA  
GTTGGAACATATTAAATGATTTTCTTACATTTTAAATGTTTCTGACTTGCAATTACATAGTAAACAAACAAAGA  
ATTTTAAATCAGTGGGAAATATATAAAGATAAAGTTTTTCATGAGTAAAGGAAGGAGCAAAATTTGGTGA  
TCAGGTTGATTTGAATTATTTCAATTTAATCTGAAAAAATTATAAGTCACTTGTACTGTTAGTRTATGAGAAATTA

Fig. 6.155

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GAATAAGAGTTTCGGATAGAGGTATTTTGCCACAGTTATATTGAGGCGAAAGGTGGCAAGCATTTCAGGGGAAAGAAGA  
AATTTGTGTACTTCTTTAAATGGTTTTGGATGTTAATAATGCAATGAATTAAGAAAGGAGCAGTCTATACTGCAGA  
ACACTTCCATTCTCTCCTTTTGTGTTTGGGAAAATACTGGCTTAGTGCCCTCCTAGGCATGGTAAATACCTTTGACCAC  
TGCCACCAGTCACTTGTGTCTGCAAAAGGGGCAAAAGAGTGCCTTTGTAAAGTATGGTTTAACTACACAGTGGGA  
GAGTGGTGTCTAGGAGATTGCCTTGTCTCTTAAGACACAACCTTTCTCAGATTTTGTGTATAGTCCACATATGAGCA  
GAGGGCTCATATTAACCTGATGGAGGAAAGGTATATTCCAACCATAAAATAAATAGCATGAAGAGATGATGAAGG  
CCTTCTCCTGCCACTTGCACATTTTCGTGGACTGTTCTGTCTGATAAAACAAAGTGAGCACTTATTTTCATTGGCATTATT  
TTCCAGTGGCATCTAGACTGTGTGGAGAGTGTGTAATTTTCAGCAGTCTAGAGAGTTTGAGACATGGTTCCTGATTCT  
GGTACTCTAGCATCCATTACATGATATGCTTGAATGTACATATGAAAATATGTTAAGACTGAGTGTGTGGGAAGAATA  
GAATAATTACACAGCCAACAAGTGTGTGAGTCTAAATATATTATCGTTCAAATAATGGATGGTACGTGGTAACTTC  
CACAAAGAAAAATTCTAGAATTATTTTAACAGTAAGCAAATTGCATTTTATCTTTAAGTAATATGGTCAAATAAAAAAG  
GTACAGGGAAAAAAGTGTCTATATATTGCCCTGAAATCCTCTTGCTTCTTTAAAAAACATTTGACACTGCAGGAAAAAT  
GCTAATTAAAGGAAGACAAAAGTTGAATTTGGATTCTAGTGCCTCATAGGACTCTAATTTCTGTGAATATTGATACAAC  
ATGTTTTTAAAAACATTTTAGTAATAGAGCTGTGTTCTGTGGAAGTGGCAGAAAGGCAAATTGCAGGCAGGCACTGAAG  
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TGGCTCTGCAACTAAGGACGACTCGCCTTGATTTCAGCGAGGCACTCCCGAGGCAAGTTGGAGGAAGATCTTCAA  
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TAATCTTACTATTGGATCTTCAACCAGATCCAATTTTTCAGCGACGCGCATAGACAATATTCCAGGCAACTTTGCCTGG  
TCACATTCTTATCTTTGGAAGCACCAGCATGGGCTCATCGTCAACAAGCTCTGAGAACCAGCCAGGAATCGCCAAAC  
TCCATTCTCTAAGAGCACTGAGGCAAGCGGAGGTGAAGAGGAAGGCTCCGGGGCAGTGGGGAGCAGTGTGGAGGAGGG  
AGGCGCGGGCAGCGGAGGGGAAGGATCAAGAGGACAGGTCTGACTCCTGACTGGCTGGAGTGGTTTTGGTGAAGTCA  
CAGCTCGGGCGTGCAGCCTGGAGCTGTCCAACTTTTCAGCAGTCCGGGATCAGGGTTCCGGTGCCTTGAGGGCGGCT  
ACCACTGCCGCGCGCGCTTGCTGCTGCTTCTGCAGCCGAGTTGCTGACAATCCCTGCTCTCGCCGCGCGCCGAA  
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GGGGAGCCCCGGGAGCGTGTCTGTGCCATAGCCTCGGTGGAAGGAGCCCTGCCGCGTCTGTGACCCCTCCCGCTGGCAG  
GGCCCCCTCTCGGTAGCCCTGAGGCTCTGGCCCTTCAAGTGAGAAGCTAAGCACCAGCCTCTGCTGGGCTGCAGAAGC  
GGCGCGGGCGGCGAGCAGCAGCAGCAGCATCAGGAAGGCGCTCGGGCCAGCGCGGTGAACCCGGGCTGGGCAGCAGGTG  
CGGAGCCGCGAGCCAGGATGGAGGCGAGGGGAGCAGCGCGCGCGCGCGGGCGGGCAGCGGAGAGGGCAGCGACAGCGC  
CGCGGGGGCCACGCTCAAAGCCCCCAAGCATCTCTGGAGGACAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC  
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AGCG  
CACCGCGCGCGCTCCGGCATCGCGGCTACTCGGACACCGAGCGCTACCTGTACTGTGCGGCCATGGAACCGCACCTCTAC  
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GAGTGGAGAGCGCCCCCTCCCCATTACAGGCAAAGGTCACCTCCCCCTTTCTCAAATACTCCATCTAAGTCGGCTTAT  
CACCACCAATCTAGACCCAGGGTAAATGCTAGTCTGGAATTTGGGGGAGGACAAACAGGGGTGTGCCTATCCTTTAT  
TGAGAGTATGCTATTACAGGTGTGTGTAAGAGACCCCCCAAAAGTATGCATAAATGTTAACTGGGGCGGTGTGTGTGTG  
TGT  
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TTGCGGGATTGACCAGCGAAAGCACCCAGCATCTGTCCACTCACCTATTGGGAAGAGGGTCGGTGGGGCTGCTCTGA  
CTGGGGAGGAGGGGGGAGTGAGAAAGCCTGGTCCCAGGATGTCAGCTAAAGCCTAAGAACAATCGCATTCTCTTCG  
TCAGGTGGAGAAGTAAATGAATAGCAAAAGGGGAGAACAGTGGGTGACTTGGAGAGTTTGGAGCAAAATGTTTCAGCA  
ATCCTTGAGAGAGACAAGGGGGTGAGGGAGGAGAGGAGCGCTGTGGGAGTTACACTGTGTGCGGTGTGTGTGTGTGTG  
AGCTTGTGTGTAGGGAGACCGT  
GGCAAGACGTAGAGATTGATTATAGTGATTTGCTTAACTAAGTGTCTCCGGAAGACAGGGCAGGGAAGCCGCTAT  
CAACCGGGAGTTTTAGTAGAAGTTGACCGCTGCTTCTCCAAGGAATGAGTAAAGGACCAATTACAGCCATTCTGAGGA  
GTCAGCTCCAGATTCTTAACCTAGGCGTGGAGGTGGATGTGGGGCCACGTTTGGTCCCTTCTCTGATAACCCAGGGAC  
AGCTCCTTTCTTCCCTGTCCCAGGCCTTCCACGCGGTGAATCCCCCTCCCCACACAGGCAAGGAAAGATTTCAGGA  
GCTGCTGATCCTTGGCACATCTAATAGTAAAGTAGAGGGGTGCTCATCTAACCTTAGATGTGGACAGGCATCGATGTAC  
TGCACCTCCAAGCCACAAGTCTGAACAATGGGCAGTTATAAATTGTAATCAGGTCTGGGTGTGGAAACAGGAAATCT  
AGGGCTGGGATTGTTTGTCCAACCTCTGATTGACAGTAGGTTGGACTGATCAGAAATCATATGCTGTTCAAATGTGTG  
TTTGAGTTTTGT  
GCCAAACTATCATAACCTGATGTGTACACATCATTTTCAGCTTGCATATATGCTCTTAGCCCTTTGCCTGGCTCACACC  
CTTAGGTACCTTGTGGAGATGTTCTGTACCTGTTGGATGGGAAGAATAAGAATTGTAATTAATAACCTCAATTGAGA  
TCAAAGACTGCAGACTTTCATAAATTAATATAAAGTTTCATTTTTCAGCCAAGACTGCTAAGACCCCTTTGTTTGAAGA  
GGTGGATGTCCTTCTCTCTCCCTTTGGTTGAGCAGCAGACTATGTAGGACCCCAATGATAGAATGAAGGCAAGCCTGA  
TACTTTGTATATTGACCTTAATAGAAAAATACCGTGTGATGATGAGCCCTTAATAAACATTAAATAAGAACAAGAG  
TTCTAGCTTGATCTGTGGGCTGATTGATTTTGTAGAGTTTCTTAATTTGACTTCATTTTAAATAAATAAGAAATATGCCT  
GAGAGAGTGGAAAGAAAGAAAAATAAGCTAATTGGAATAGAGGTATTGCATCATTGATTGATTTTGAATTTTGTGTATGC  
TTTCTACATTGATTAATTGTTCTATTGAAATTTTGTAGTTGAATGGTTACAGGCAAACTAAGATGTATAATATTATATA  
TGTAGCTGCCACTGTGGCTCACCTGATATATCATTGTCTATTTAAGGATCCTTAGACTTAAATTTCTTTACAATA

Fig. 6.156



[illegible]

SDOCID: &lt;WO 02074992A2 1 &gt;

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CCTCGATCTCCCAAAGTGGGAATATTTTTCTTTCTGGGCTTCCCATAGCTTTCGTATATTATTTGTACTCTAGCAGT  
TATCAATTGCAGTTTAAATATTTGTTTTATGTGTTTCCCCATTAGGTATATTAGGACCTTG .CAGTGAATGGTTTTA  
TATAGATTTTAAATAAGTGAGCTTTTAAATGTGGAATAATAATGAAACCTTGTCTTTTGTGTTGTCTCTCTCA  
GACAGGATATATTTGATTTTCTTAATAATCTCTTTGAAACACACAGAGTTAGTGATTATTTTACCCATTTTATAGATGA  
TGGAAAGGAATATTGAATCTCAGAAAAATAGACACATATTCATGTTCAAAGATAGAACTTGGACTTGAGCCAAAAAGGT  
CTAGTGATCTTTTATTTGTAATGTAATGAAACAAGAGATACTGTGAGTATAGGTTGGTATGAGGAGAAGCAGCCTATA  
ATTTGACTTAAAGATTGAAAGACAGAGTGAATTTAATATATGAAGAGAAATAACAGTTTGTAGTCTAACTTATGAAA  
AAAAAAACAACATGTAAGAGTGAAAATACTCTGATGGGATAAAGCCCCCTTTGTAAATTTAGAGAAGTGCTCTACAG  
AGTAAATCTTAACCTTGGGTTATGTGGCTCTACAAGATTCATTACATTTGGAGGTAGGCACACATTTCTTAGAGAATG  
TTTATCCAATTCTCAATGAGTCTTTTATCCACAAAATTTAAGGCACTGTGTTCTAAAGCTAAGTTATTGACTGCTTCAC  
TAAGGGAAAAATTATGAGAACATAGTATACATAATGGAGTAAGATTATCGTTGGGGTGGCTGAAAGTAAGCAGTTTGA  
TGGGATTTTAGAAAAATGCAACACTTCAGACAGATAAGGTCAGAGGCTTATTTAAAAATGCAATCCCCAGTGGGATTT  
TAGGGGATTACTTGACTTAAATTTAATTTAAATATAAGGATAGTAAAGAACATTTTGAAAAATAAAAAAGACTGTTTT  
TCCTTATAAGATAGCAGAACATATCATATAGGCTATTAATTTCAAAACAGCATGATAAATTTAGAAATAAACCAATAT  
TCAACCAACTGGATAAATGGTCAAGAATAAGGCCCATGCATATATTGAAAATTTAGGGTTTAGTAAAGGTAGCAGTCCA  
AATCAGTGAGAAAAGGATAAATTTAATATAGGATAAATGTTTTAATGGTTTTATGAAATAAAAAATGATCATTACT  
TCATTCACTATAATAAAGAGCACTGGATAAAAAAGATTAAAACTCAAGAGAAAAACAGATAAAGGCCATGAACAGA  
AAATTCAAAAAGGAAGAAAAATGTATGACAAATATACATTTGAAAAGTTTTTCTACCTGACAAACAGACAAAGAAATAA  
AACTGAAACAATTTTTCATCTATCATTTTGGAAAAAGATGAAAATTTAAAGAATTTGAGATGGTATACAGACATAG  
CCACTTTCTTATGTACATTTTCAGTGAACAAATATATCAGGAATCAGGAAGTATAAATCAGGAAACATTTGGTGGGTGA  
TCAAAATAATATATCAATATTTTAAATGTGCATATCTTTGCCATTAATCTATGTTTGAAGACTTAGCCTAAGATA  
TAATGAAATAAGTGAGCAAGAAATACTATATTGCAATATTACATATAATAGTATACATCTGGAACACCACCAATATC  
TTTCAGGACAGAAATGTAAATAAATGATGATATATCTGTATTGAGATCTGTATGTATTGAAATTTATTGAAATGTTAT  
TTTAACTCTACAAGTTGTTATGTGGAAAAAGCAATTTAGAGAATAGATGACAGAATATGGTATCATCTACCAGTGTGT  
TTTCATGCATGCTTATTTTACATATATGAGATTATGTCTATGTACATGTGTGCTATAGTTATGTATGTAGGTGTATG  
TGTGGTATGTGTGTATATATATATGTGTGTGTATTTATATCTATATACATATATGTAGAGTGAGAGAGAGACA  
GAGACAGAGACAGTACTACATATATGTAGAGAGAGAGAGACAAAGACAGAGAGAGAGAATACATATATTTCTGTCT  
AAGCAGGAAAAACCACCAACTGTTACAGGTGTGTGAGAGAGGATATTTTGAGAGGCTTTTGATTTTGTGTTTATGTTCT  
TCTTCTTACTCAATTTCTTTTAAATGAGCATGTGTGTTTTTATAATAAGCAAAATCATGTATTTTCTCTCTTTTG  
TAAACAATATTTTCAACTTATTTCTGTTAATATATTTCACTTGTATTTCACTTGTCTTACCCTCCAAAAAAGCA  
AAGGATTGCGTTTCATAAAAAAATTTAGTAAAAGATAAACATGAGGACATCAAAGAGAAGAGAAAATGGCATGAAAATA  
GTATGAACATATGAAGCAAAATTCATTTCAATTAATTCCTGAGTAATTGCTAGAAACGAGTCACAGACTGGTTCTGATC  
TTCCTATCAACTAATCCAAGGAAGGGAACACTGTTGCTTAAAGATTCTATATATCGGTAAGTTAAAAATGAGTTGCTTG  
GTAATAATATTGCTATTAACTCTGAGAGTTAAAGAAATTTCTCTGTGGTGTTTTATAAAAAAGATGCTATGTGAT  
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GATTCTTATAAACTACACATTGATGGCTGTGTCTAAGTTCCATTCAATTGAAAATCTATCAGCACTGGAGCCCCAGT  
TAGCATTCTTAACAGGGCATTCTCTTTAAGACTGAACACTAAGTGTGCACCATTAAAGAAGCTGCATTCTTCAACTTG  
GAAATTCCTTCTAGACTCACTCTCCTGTATCCCACGTTGAGCCTCTTGTCTCACCTGAATACCCGAATTTGATTGGA  
TGCTGTATGTGTTCTCTGGTCTTAAAGATTAAAACTAAGGTCTTATTTTGTGTTCTTGTCTCAATATTGCTTTTGA  
CCTGCTCTGTTCTGTAACTGTAGCCCTCAAGCAAGCCCAACCTAATTTCTCAAGTGTGGCTCAGAATTTCTGGGACACCA  
GCCCAAATGGGCTCTTCTTATTTGTGATAGAATGGAACCAAGGAATAAGAGAGGCTGGGCATCTGGCTCACGCTGT  
TAATCCCAACACTTGGGAGGCCAAGACGGGCAGATCTTCAAGGCTGAGGCAATTCAGATGAGCTGGCCCAACATGGCG  
AAACCCTGTCTCTACCAAAAAATACAAAATTTATCCAGGCATGGTGACACATGCCTGTAATCCAGCTACTCAAGAGGC  
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AGTCTATCGAGATTGTTCCAAATTCATGATAACAATATTACCTAGTATGCAGGTGTGCTTCCAGCTCACTTGGGAAGCATT  
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CACCACCTGGGTTTTAGTTTTATTGAGGACCAGTTTTCTGTCTAATGATCAGTAGGCAGGGGTCTCTACTGTCCAGAA  
ATCATGTGGTTACTCATCAGGCAGCTGCTACTACAGACACTGAAGAAAGATCATCAACATGGATAAATACCCTGTTT  
TTATCAGATGTTTGAAGATAATAGAGTATAATGATGCCCTCATGTAGAAATAGGTTCTAAGAAACCCATACCTATAT  
TAACCTCAGAACTGCCATAAATAGCTGAAATATCCAATAAATCAACAGACCCACAGTTTGTGAGAAACAGAAGGATGT  
TCATGGCTTCAATGGGATAGGCCAACTTTGTGTTGAATATGTGCTTCTTATGTCTTGTTCCTCTGCTGAAATGC  
CTTTTCTCTCCACACCCATTAGTGTTTTATAACACCTACTCATCTCAGATCTTGATTCAAGCATCTTCTTTGGTG  
AAGTATTTTTCAGATCTCCCAACCTGTCATAATACCATATAGTGCTCCTTTATATTGTTTATATATTTTCAATTACAT  
GTTTAATGTATAATTATTGATAAGGCCAATTTCTTTACCAAACTATAAACTCCTATGAAATAATGACTCTGTCAAT  
TTTTCTCATTCAACACAGTATTTGTACATTGCTTGAAGTAAAGAAATTATTAATAAATAATTGAACCTCAGGGTTA  
CCAATTTTATGAAGTTAGGAATATACCTTTAAAGTAAGTAGAAAACCACTCCAATTCAGACAACCTTTACCATGTGC

Fig. 6 (152)

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TTTATTTTATTAAAGAGTTAAAAATAACTATACAAATTTATTTTATGTAAAAGACACTTCAGTTTACAAATGCAAATAT  
CACCTCTGGAAATAAACCTAAAGGACAGGAAGTCATTGAAGAAGTGGCACCATTGGATTGCCAGGATGATGATGTTGCAG  
GAGAGTTATATTTAAGGAGACGGCAAATAAAAAATGATAATAAGGACATTAGATACTAATTTCAATGTTATTTTGTGT  
TTTGTCTTATGATTATTTTAGTGTATTATGCATTATTTAACATTTATTAATAAATTATAAATACTCTGGCTCAATTCATT  
CTGTTAGCTTGGTTTAAACATATATAAAATGCCACAGCTACTCCTGTTATTGGCATCTGGTAGTTCTGCATGACATTA  
AGACCCAAAAGTAAAAATAAAATAAATTTCTTGACTGGAGAAAATAATTGCCAATTCAAAATGGTCTACTAACCTTAAACAT  
TCATAAGAAGAAGAGTATGTATCATCATCTGGCAAATGGCACTTATAATTTATAAATGCTCCTTTTAACTTTATG  
TATTATTTTATTTTGGGGTAGTAAGATGTGGAAGCTGTTAGATAGTCATTACTTCTGTGACATGGAATATTTTATA  
AACATGAAATATTTCAAAAAATAAAAAACCAGTAATAACAGGTACATACACACTCAATAATCTCACTATAGCAATA  
TTTCAGAAAAAATGTATTTAGGGAAAAACAATTTATGTCTGTTTGTGTTTATGTTGGCAGTCATGACATGAGGACCCAGA  
CTCAAGTGCATTGCCATTTACTCCCTGGTAGAATGTGATTTCAATTTCCAATGAGCTCAAAACATAATGATTATATGTCTT  
ACTAATTATACAAAACATGGTGAAGAGGTAGTGTGCTTTGTGATGTCACATATCAAAAATGCTTTCTTTTAAACATTTT  
TATCTCCTTAGCTAGGTTTAAAGAGATAACAAGATACAGCTTGTGCAATGCCAGCACTTTGGGAGCCAAAGGCTGGTGGATCAAA  
CCCAGAGATTGTTTAACTGATTTCGACCAAATTAGATTATTGACTTGACAATAATGAACAAGATACCCCTTTGAATTTT  
TGTCATCATCTTTTGTAACTCATGAAAAATTTAGGCCAGGCACAGTGGCTCACACCTGTAATCGCCGTACTTTAG  
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AAAATACAAATAATTAGCTGGGTGTGGTGGCGTGACCTCTGATTGGTCCACCTACTCAGGAGGCTGGGGTAGGAGGAT  
CGCTTGAGCCAGGGGTTCAAGGTTACAGTGAGCTATGCTCCTGTGTGCTGCGCAATCCAGCCTGGGCAAAGAGTGA  
GACCTGTCTCAAAGAAAAAATAACAGAAATGTTGAACCCATAAAGTAGATAATGAGGACATAGTGGGAGTATGTAG  
AAAAGCAATAACAGGCCAGGAGCAGTGGCTCAGCTTGTGCAATGCCAGCACTTTGGGAGCCAAAGGCTGGTGGATCAAA  
GGTTAGGAGTTTGGAGACCCTGACCAACATGGTGAAACCTGTCTCTACTAAAAATACAAAAATTAGCTGGGCGTGG  
TGGTGTGCACCTGTAATCCCAGCTACTCAGGAGACTGAGGCAGGAGAATCGCTTAAACCCGGGAGCGGAGGTTGCAGT  
GGGCAGAGATTGCGCCACTGCACTCCAGCCTGGGTGACAGAGCGAGACTTTCTGTCTCAAAAAACAACAAAAAACCCAA  
AAACAATAACATATAGCAGTGTGGCCCTCAAGCAGTCTGGCAGCCTTTTTATTGCTTTGGATGCCCTTTGTGTCTAAG  
CATTTGCTTTAAATATTTGATGTAGTTAATTAATGAGTATTTTGGATCTTCTATTATACAAATCTGCCTATGAAAAATA  
AATGCAACAAAATTACAAATTTCAAATGATAGAAGACCAACGGAAATACAACGATAATGTCTCAAATGTGCCTAGT  
AGTTTAAACAGAAATATAACTGCCATCTGATTATTAACAGTAGAAAAATGTTTAAAGTAGATAGTTAAAAACTGTAGTATCT  
AATGGTTAGATTTTCCAAGACAGTACCTAAGAGAGTAGTTCAATATATACGGAGTTCCGGCTGTGGAGGATGGGGCT  
GGTAAGGAAAAGCAAGAAGAGGAAATAAGGCTTTGCTAAAGATTCCTTAACTTCCCTATAAGATGTTACAGAGGCACTG  
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CACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGAGAGCGGATCAGCAGGTCAGGAGATCGAGACCATCCTGGCTAAC  
ATGGTGAAACCCCGTCTCTACTAAAAACACACAAAAATTAGCCGGGCGTGGTGGCAGGCACCTGTAATCCCAGCTATT  
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TCTGGGCGCAGAGCGAGACTCTGTCTCAAAAAAATAAAAAAATAAACTTACTTCGGTAGATATGTAGATCA  
TGGAGTGGGAAGAAATTAAGGTGTGATTAGGTGTTTATTGCAGTAAACAGATGAGAAATAAATGGTGTAGTCTGA  
AACTGATGCTGTGGCAGTAAAGGATGGACATGGCAGTAAAGAGATGAATTTAAGAGAGGTTTTTTTTTAAAGTGGAAAT  
GATAGATCCTGTGACTGACTGACTTAATGCTATTAGATAAAATAATTTTTAAATTACATGTATTTCAAAAAGTACAA  
TTAATGAATCCATGGCCAGGCATGGTTGCTCATACCTGTAATCTCAGCACTTTGGGAGGCCGAGGTGGGCGAATTGCTT  
GAGCCCAGGAGTTCAAGACTAGCCTGGGCAATATAGCAACATCCACCTGTATTTGAAAAAATAGTAAGTAAGTAAATA  
AATAAAAAATCCATAAGTATTTGGACACCTAAGGTAATTTAAATCTTGCACTTTTGTCTTTCTTTGTTCTTTGTAATT  
TTTTAGCTTTGTTGAGTGGGGAAAGTTTGAATATTTGGTCACTAAGGCAAAACATTGAAAAAGCTCTTGACAGGAAAT  
TGCACTGTTGTGGATAGATCACTTGTGTCAATACGTGAAGCATAACAAATGCTTTTGTATTGTGAAAGCATAGGTAGAT  
ATATTGCATTTAGGTCACCACTAATTAATTGCATTAATTTAGTTAAATTGGTTTTCTCAACTCATCTGAAAAAGATGA  
AACTAACACTTCAAACACTTCTCTTGGTAACATCATAAAGACAAATGAACCTTTCTTTTTCAGTCATTTCCCTCCTT  
CCCCTGTTCTGCCCTCTCTCTTAAGTAGGAAGCTACTACACCAGCCTTTCAGCTTTGGTTTTCTAATCTTAATTATT  
TCTGTACCCATCTATCACTGGAATTTCTTCAACACTGATGTGTGGATGTGTGTGTGTCGGGGGTTGAGGGGTGAGTTT  
GGGGAGTGGTGTGTGTGTTATTGCAAAATATCCTTTTTTTTGTCTTATCTTTAAACCTTTTGGAACTTGTCTAAAC  
TTTTCTTTCTCTTTTTTTTGGCAGAATCTTGCTTGTCACTCAGGCTGGAGTGCAGTGGCGCATCTTGGCTCACTGCA  
ACCTCCTTGTCCCGGCTTAGCTGATCCTCCACCTCAGCCTCCCAAGTAGCTAGGACCAGAGTTGTGTGCCACCAATG  
CCCAGCTAATTTTTGTATTTTTTTTGTGGAGATGAAGTTTCCGGAGATGAGGTTTACAGTGTGCCCAGGCTGCTCTTGA  
ACTCCTGGGCTCAAGCTCCGCTCCCAAAGTGTGGGATTACAGGTGTGACCCACCATGCCCTGCAAACTTATCTAAGC  
TTTTTTTTTGTCTTCTTCTTTTTTTTTTTTTTTTTTTTGGTCTGGCATAACATGTGCTGAATGTGTAGGTTTGTAC  
ATAGATATACATGTGCCATGGTGGATTGCTGCACTTATGAACATGTATGTTTATTGTTTAAAGCTTTTTTATCCTTTTTTA  
TCAATTGTATGTTTTTAAAAATCTCTGCCATGTGCTTTTGGCTTGGCTAATCTATCTGCATAGACCAATAATAATC  
TGTTAATCACACTTAACAAGCCTTTGCATTTGATATACCTCTTCAAAACAACCAACGAACATGCAAGGCAAAACAAAAC  
AGCAACAACAATAAACACTTCATAGTCTTTCTTTGCTTGTCTCTAGGATGACTATTCTTAAGACCCACACCTGACA  
AGAATAATCTTTAATTTTTTCAATTTCTTAGAATCAAGGTATTGTGTTTTCATGTAGAGTTGTAAATATGGTATAAGCA  
AAGATACTTGCTCTCAAACCAGGATTTTATATATATTTTCAATTTTGTGGTTCTATGTATGCATTTTGGCTCTAAAT  
ATTTGTTTTCTAATAACCATTAATGTGTAGGACAATTAATGTATTTTGTGTTGTGTGCTTATCCTTTTCTTTCC  
CTTCATCTTAGTATTAGGATAAGTATGCAACAGTAATTTTCCCTTTCTATGAGATAAAAACTTCTACATCTTCTAAGA

Fig. 6: 159

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TAATATTACTGAGATAGCCATTTATAGATCATTATTTAAAAAGACTTTTTCATAGTGCATTGACATACACTATCCCAAT  
TGTTCTCTCATATAGAAGAGTTTTAAAGTTGAAGAGAAACATAATCAATGTCTCTAGAAAAGATTCTCTTGTAGTAGCAT  
AGAAGGGGAATAAAAAATAAAGCAAGACAGAAGGTGGGGGGAGTCCAGTTGAGACATTATGATAAAAAATCCAGTATAGCA  
GATAGAGTCATAACTTAGAGCAGTGGAAATAAATAGGTTGATATTATTAGGCTAGGTTTGTCCATTCTTAGCAATCAATT  
AGAAAAAGGCAGGTGGATAAAGAATAAAGAGATGGAAATCTTAAGGTATGTACTCAGCCAACCTGGGTGAGTGATGGTAG  
CACTTACCAGGTCAGGGGAGGAAAGCTGAAGAGTTTGTCTAGTGAACACACAAATAGAAATGTTTCAGTAGATTATTGTCA  
TCATCATCATCACCATCACTATCATCATCATTATCATATTTCTCAGCACTATCATTATTAATTTGTGAGGCTTGGTA  
CTCCTAGAAGCTTTGCACAGATCACAGTTCACTTAATCTTTTCAACAGACCGTGGAAAAATATACCCTTTTCTCTAGATG  
CAGACCTGGAAAAATGGAACCTAGAAAAGTTATAGAATATATATGTTGTTGTTGTCCTTTTAAAGCTCAGTGATCATGTGC  
AGGATATGCAGGTTTGTTCATAGGCAAAACATGTGTCTAGGGGGCTTGTGTAGCGATTATTTTCATCACCAGGTATTA  
AGCCTAGCATCTATTAGTTATTTTCTTGATCTCTCCCTCTCCACCTCCAGCTCCAATAGGCCCCAGTGTGTGC  
CATTCCCTCTATGTGCCATGTGTTCTCATCATTTAGCTCCCACCTCTAAGTGAGAACATGTGGTATCTGTTTTTCTG  
TTTTCTGTATTAATTTGCTAAGGATAATGGCCTCCAGTCCATTCTAGTGCCTGCATAAGACATGATCTGTCTTTTTT  
TATGGCTAATGCTAGAATTTTATGACTCCAAAGTTTCAGGTTCTTTCAATATATCAGATTTTAGGAACTCAGAAAGAAAT  
GAGAGAATAGTGTGGATTGGTTGGAAGTTACTAGGAAATATGATGAGCATCAGAAAGAACCTAAATAAGGGATGCC  
AGTGGGGAAAGCTCAAGGATGGAAGCCAGAGGTGCACCATTAAAGTGCAAGGAGGAAAAGAGGAGTCAGTGATGGGA  
CCTAAGGAGGAATTTCACTCTGTGCTTTTTCAAGCAGGATACAGATTCTCTCTTTTTTTTTTTTTTTTTTTTTTGA  
GACGGAGGTCTCACTTGGTCACGAGGCTGGAGTGCAGTGGCGCAATCTCGGCTCACTACAACCTCTGTCTCTGGGTTT  
AAGAGATTCTCTGCCCTCAGCTCCCGAGTAGCTGGGACTACAGGCGAGTGCCATCAGCTCCAGCTAATTTTTGTATT  
TCTAGTAGAGATGGGATTTCCCATGTTGGCCAGGATGGTATCATCTCTTGACCTCGTGATCCGCCCTCGGCCCTC  
CCAAAGTGCTGGGATTACAGGCATGAGCCACCATGCCCAGCCACAGATTCTTCTGTGTTCAATTTGAAATGTGAACCTC  
TGAACAAAGGACAGTTTATCTTGGATAGTCTTATTCATGATTTATATATCACTAAAAGAGCAGAGAATCTGTAGATAT  
TATAAGTGGGATCCTTAATAATTAATATATGGAAGAGAGAAGCTTACCAGATACCAGGATTTTCTGCAATTGCCTGGAAA  
AGGAGGATATCTGCAACCTTTGTACCTGTGCACTTATCAGATTGGACCTCAGATGGGACCTCTGCCCCACAGAATTT  
CTCTTTAATGACTCATTGCTTACTGGTCTAAGAAGAAAAATAATTATAGCCTCAGGTTAGAAAAATGAAATTGAATCA  
TTTCACAGTCAGATTAATGCTCCATTAGTCCCATCTATATGAAAGGGAGGAGGAGTCAACAGTCAGGTTGGAAATTC  
CTTGGGATGATTGAATGTAAAGGGAGAAAACTGTGATAATTGACATAGTCAAGGCAAGAACCAGTCCGAAGCAATA  
TTTTCTTTGTGTGAGGAAAGGGTACAGTATTGCTGTTCTTTTTACATATAATATTACTTTGTATTCTCCCAATCTT  
TATTTTTTTTTTAAATGGATAAGAAATCATAACCAGTAGAGAGAGTAAAGAAACACAGGTCTATTTCTTTAATGAATA  
TCATCACTCTTGAGTTATAACTCTATTATCTACAGTCTTGTTAAGTGAAAATTGTTTCTCAATAAGAACACTTTTTTA  
TAGAAGTTGAAGTTCTCTTCTGGCACACATTAGAATTCTCCAGTATTATATTTCAGTTTTATTTCATGGTGTCAAAGG  
AATTGATGTGATAAAATTTCCAATAATGCAATGAGAATATTCACGTTTGTGCAAAATACCATGGAGATGTTGAGAAGTAG  
AGTGAAGGACATTATGTGAAAAGTAACATCTCACTGGACTCACCACCTCTAAATCTTACTTTTTCTTCAGAGATGAG  
GTCTCACTGTGTCACTCAGGCTGGGGTGCAGTGGCATGATTAGGCTCACTGCTACTTTGAATTCAGGGCTCAAAGGA  
TCCTACTGCCTCAGCTCTCTGCGTAGGGAGCCATCATACTCGGCCATTTTTTAAAAAAAATTTTTCTGTAGAGACAA  
GGTATCACCATGTTACCCAGACTGATCTTGAACCCCTGGCTCAAGCAGTCTCTCCACCTCAGTCTCTCACAGTGTGAG  
ATTACAGGTGTGAGCCACCATGCCTAGCTTAAATCTTGCTCTTATATATGCAATTATTAACAATAGAAAGCTGTTTTG  
TATTACTAGATTACTTGGTTTTTCAAATTTCAACAACCTTTTTTGATTTTTAAGAATATTGGTTAGAATGGAAGTATT  
GGCATAAGTCACTAGTTTTTCAAACATACCCAGCAGAGTTGAAAGCGAATGTAAACGCCATGGCCTGTTGATTCTAT  
CATCGTATAGAGTATTTTTCTGCTTATGTACTTTTATTGTTTGGTTTGTAGACATGTATGATTTATTACACCAGTATT  
TTAAGACACATTCTCCCTCTTCAATTTCTGCAATGTACTGTTGCGAACCACTTCATAGGTAAAGTTGTAAATATTGC  
TAATTTACATGGTTTCAGCCTAATAGAATCTCATGCCCTTTTAAAGCCTTGGAGAAGGAAAGCTCTCATATTGTCTCCT  
TCCAGATTCTTGGCTCAATCCAAGCTTCTGCATAGTTGGAGTGGCAATCCCACTCCTGCATCTGGTGAGCTGTGCAGT  
TAGCAGCTCTGACACTTTTCTACGCTGTTCAAACAATTACAGCCCCAAATGTGAGTGTGGCCTTAAAAAAGGCTGATT  
CCATGTGACTACCAGATTGCTTCAAGATCTGCCCAGTCATCCCCCTGACTGTGTATCCCTTAAAAATCTGTGTCTATCT  
GGGTACAGAAAATTAGAAGAATGTTCTCTTGATCTCTGCTTAAATTTTCAGAAATTTTCTTTGAAACCACGAACTAGA  
GAATTGGAATTAGACTTAATGACTTGACTCTATGTAGTATATTTCTTTCTCCAAACACTGTTTTGTATACATGAGG  
AGGGACAAGAAATGAAGGAAGGGGAAAAGTATAGCGTTTCAGCCCCAGAAAGGTACCTTTCACAATGTAAATGCAGAGT  
ATCTGGTTAGACATAGCCATTTTGTCTCAAGCACATTTCAGAGATGAAGACATGCAGTCTCTAATTGTTTCTGTTGTATC  
TAAGAGGGTGAATAAGAGGTGGCATATGAAAAAACCTTCCATTTTCATTGAGCGTACCCATATTCTATGGCATTCT  
TACCAGTCAGTAGGAATTTTTTCTTACTGATCAGTACTACTGAATTACCCAAAGGCAAAAATATTCCCTATTGTTTC  
TTTGTCTTCACTTTGTTCTCTAGCTTCTAGGTAGATGTTAACTTTTTTGGTATTTAAATGTGCACACTCCCTGAGACC  
AACTGCCTCAGCAAGTTTTACTTCAATATTAATGGGCAAGATGAATATTGTTTGATGTTTCACTGTTAGCAAAAGGGA  
GGAGAAAGAACTAGAACTAAGTTCAATTGAACCATTACTATGCAGGGTCTATACAGTCATGATTATTATCTCAGATTCC  
AAATTCTGTTTACCACAAAATTATGATTATCAAAATTTAAGATAGTAAATTTTATGTGTATTTTACCACAAATAAAAG  
TTGAAAAAATGATTGACTATATCCAAAGTTGACAGTTGGTAAGTAGCTTTTTTATTGCAAAAAAATCTGCTGATTGT  
GAAAGAACCTTCATTTCCAAATTAGGAATAATTTCTGCAAGGAAAGACTATGCTGTGTGTGTGCTGTGTGCTCTTGT  
GTGTGTGTGTGTGTGTGTGTGTAACCTTCTGTGTGTGAATCCATCAGTGGTTTTGCATTGTTTACAGGATAATGC  
TCAGAATCCATAACAGGTCAAGTAACTCATCTATCTTCTTAGGCATGTCTGTTATCTGATCTCTAGCTTTCTTCT  
CCCATCGTCGCCAAGTTTAGTTCTACTTGACTTCCTTCACTTCTTCCATTGACCTAGGAGACCTCTAAGACTGAA

Fig. 6:160

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AGGGAAGTCGTGGGCTTGGTGGAGTTGAGGTGGGAATCTATGAACAGATAAATCAGATAGAAGCATTGTTTGGTAGAA  
AGAAGAGCTCATGAGTGGCAGTAGAGATTGAGTTAAAGAGTGGGATGAAAAAGAATCAAAGGAAGTAGTACGATTTGG  
TGACCAATTTGTTAGAAGGGATGAGGGGCAGTAAGTAGTCAGTGATGACCCGAGGTTTCTAGCTGGACCTAGAATTGT  
CCAAGTAGTCCAAAAATGAAAAATTTGCCTTTAACTAAGATGAGTTTGACAAAAGATGAAGTAAATTTGAGGGGTGTAG  
GTAATGAAACAAAGTTGGCTTTTCTCCCTTGATGGCAAATTTAGTGTGTATGGATGTATACATTTGTGTATTTGTGT  
GTTTGTCAATACCCATTGATTTTCTTAGGTTATATTCAAATACTGAAGTTGTACTAATTAAGCAACCGAAGTGTATGC  
TTTCAGCATGGTACCTTTACACAGCACCACCAACATCATTATATTATTTCTATTGTAGCATAACAAATCACAACAAAT  
TAGCATCTTAAACAATACACATTTGTTACTTTACAGTTTCCATGGGTGAGGAGACTGCACCTGACTTAGCTGGGTTT  
CTGTTCCAGGCTCTCAAAGGCTTTAAGAAAGGTGTTGGCCAGGATTGGGGTCTCATTTGAGGTTCTGGCTCCTTTTCC  
ATATCAGGTGGCTGTTGGCAGAATCAATTTCTTAACCACTGTAATAATTCCTTGAAGCTTGTTTCTCAAGGTGAGCAGG  
AGAAAGAACTCTGACTTCTGACTTCTAGGCCATTTTTTGGAGAGCTAATCACTTGCTTAGACCAGACCAACCCCTGAAT  
AACCTTTGATTAAGTTAAAGTCAACTGATTAAAGATGCTAATTACATTTGAACAATCCTTTAACTTTGCCATATTCCAC  
TGGTTAAAGAAAATTACAGATGTTGACCATCTGGGAGGAGATAGTGAAGGGCCTGAGCTATTGGAGATCATCTTAGA  
ATTCTGCCACCACAATCGTGTCTATGTTTATGTCAGGTATATGTGTGAGTGTGTATTTATGTGTGTAGTTAATAACTT  
AAAAATGAATTACATGTATCCCAAAACAAGCGCACTGCACATCCCATGCCCTTCTTACTTGGATTAGTTTTTCTGTA  
AGTTACTCCAGGCTCTGTCTTCCCATTGTTAGGTTTCTTTCTGTCTGTCTGGCTTCACTTTGCTAGGCCAAGAAAGC  
ACTAAATTTGGCTCTGAAATGTACATTTTCACTAATCTCCCTGTCTTGGCAGCAGTGGTGGAGCTTTAGCAAATCGTT  
TGTGATCCCAATGAGCTTTCAGCAGTTTGGAGTGAGGCCATGGCCACATGTTTGTATGCCACCAGCCTGATTTTTGTAA  
TGAAACTATATCAATAAGGTAAGTAGTCCCTTCTTAGGCATGCATTCTTTTCAATTTTATGTAGTGGTCAGTCATT  
TTACAGTGATACAAATAAATATTTATGCTTTTCACTGTCTTTTAAAGCTTTTAGCAACGTTAAAGAAAAGGAGTCTGTAAT  
GAATGAAATTTGTCCTTGAACCTTATTTTTTTCAGCTTTTGGAGATATATCGAGTGTACTTCTTAAACTGAACATGTGC  
ATTTGTTACATTTTATATATGTTTCCACATACACTTTGTAAGAATTAGAGAGAGCTTTAGAAATAGAATTTAAGTTG  
ATTTGGTATGAGCAAAATATATTGTTGGAATGAAGCAAGGAAAGCAATAGAGCCATCATAGTTAATCTGTTTAA  
ACTTGTTTTAACTCTATCAAGGTTGGGCCAATGTGGCAATTTATTAATAATTTGCTCTCATTAAATGCAAGAAGAA  
TGTTCTTGGGAAAAACATGTTGTCTTGGGTACAAATTCAGCAATGTTTTTACCACATGAGACTTTATGGAAAT  
TCCAGATAACAGACCTTGCCCTAATGGTATGTGGGCAACAAATCCAGAAGTATCTATCATAGCATTCTTTCTTATAACA  
AATTTTATTAGAAGCCAAGGCTAGAATGTTGAAGCTGGACTCCGGGCAGGTGATTCAAATGCCATACTATTACTTTCT  
AGCATGGACAGTTCGTGTTATTAACCTACTCTTACATAAACTTTTAGAACCAAGGATGGAGGGATGCTGACATTCC  
TTAGATATCTTAGGTAATAATCCTGAAATTCACCTTTCTGAGTTTGTATAGCAGATAGTAAGAAATTTCACTTT  
AAAACCTCTTAGGACCTGAAATGTTATTTTCCACTTTGCTGATTGAGGTCAAGGACTATTGTTTGAACCTCAACACA  
AGCAGGTGGTGAGGTTCACTTTCACTGGTAATTACGAGAAAACGAACCATTTATGCTAGATGCAAGGCCACCTCATCTT  
GCATCCGGTAAACATGCCAACAAAAACACAAACAAGTGTCTGTAATACCTTTCAACAGCTCCCTGTTGCTCTCATTATA  
AATATGGAATCCTTACCATGGCATTTCAGGAATCTGCATGATCTGATGCATGTGTATATTGACAGCACATCTTGTATCA  
TTCGTGACATCACTCTCTATTATTTGGCTGATTTTGACCTAATTCAGCACTTGGAAACCACCATACTCACTCCTGCCTT  
GGAGTTTTTATGCATACGTCTTCTTACTGAATAATACCTCCAAACCCTACCGTCACTGCCTATTAACCCCTACT  
TCTCCTGTTTCTCAGTTCAAATCTCCCTTTTCTGATTATGTGTCTCTGATTCTCCAACTTGGCAGTTGGCCCTGTT  
AGGACTCTCAGAGCTTACTGTAGTTTTTATTCATCCATAGCAGCTTTATGAGATTTTTTTCATTAATGTCTATTAGCCA  
GATCGTCAGCTCCATGAAGGCAGGTTGCAGGCTTGTTTTTCTGACCCTCTATCATCAACCAGAGCACAAATAAATGAA  
CATAAAGTGAATTCATAAAAAATGTGCTGAAAGGATAAACTACTGTTATTTACTACATTAATTACAACCTTTTGTAGCC  
CCTTACAAAAGATGCTTTCTTAGATGCTGCATTTCCCATTTCTACAGAGGTTGAATAATATGACTATGATAGTTTATAGAG  
GAGATGGGAAATAGTTTGGTATTTCTTAAATTAATAATATGAATCTGTTAGAGCTAGAATTTTATTTTCTGAAAGATAAT  
CTTGTTTAGCCAGTGTGAGAACTACATTACACAAGAACATTTTGTCTAGTATTATTCGAGGAGAACTAACTTGGT  
AACTGTCGTTCTTAGAAGATTGTTTTTATCAGGACCGTTGCCTTCTTGGAGCTTTATGAACTCATGTTTATAGGACAG  
TTAGACATTAAGTGTAGGAGTTAGAGAATACTAGAAAGTGAACCTTCAAGTAAAGAAAGTGATCTTTTTCTCTAATGGCA  
ATTCAGTTGCAAAGTTCTATTTTATTTCTAAGGGCTCATAGAGGGTGGTCCCAGGATTTCTTAGGGGTCTGTGAGA  
CCATACATATTTTATAATAACACCAACATGTCATTTGTAATTTTCACTGTACATTTTCTCAGCAGAGTTCTCCAGAAG  
CTATACATGTGATGCATATTATTTTATAACAGATTGAATACGGAAGCAGACATGAGAACCCTAGATGCTTCCATTAGG  
TGGCACAATAAAAAACATTGTCACTCTTCTCACAGTTTTTTGGAAAATAGTTATTTTACCAGAAAATAAATTTATTAT  
ATTTTTTGAAATGAATTAGTAAATAAATTTTATAATTGTCTCAGTTTTAAGATGGCAAAATTTCCACATAAACAAGA  
AATCTGTGAGTCTTCAATAATTTTAAAGCTATAAAGAGATTCTGATACCCAGATATTTGAGAATCACTTCTCCGAGCC  
ATTTTATGACACAATTTTACTTGACTTTGCAACCTGACCGTTTTAGATACCTTTTCTTTCCAGTCTTTTCTTAAAGAT  
CAATTGATTAATTGGGTTGACTCGATGATACAAGCACACGATCTTCAGTATCAAAGATACTCATGACCAGTAAACCCC  
TCTTTAGTTCTCAATTATCCAATTCCTTTCTGAGGCAACTGCTACTCTTGTATTTCTTAATGGAGATCTTTTATGT  
GTTTACTCAAATGCTAAGACATAATATATCATATTCTGCTTCTGCTTATCTTCCCTAATGATATAGCAAGGAGATTGA  
TTCCTAACTCTGCATGCAAATCTGCCATAGTGCTTTTAGCAATTGCAGTATCGTCCATGATCTGGATGAGACATAATTT  
ACCAGACTCCTGTTGGAGTCTGTTGGATTGTTTCCCATCTTTTGTCACTACCTACAGTGTAGTGTAGTACTATTCTTT  
ACTTATTTGTTTCTATGTAAGTAATATATCTCTAGAAATTAATTTGGAGGTGGAATTTCCAGATCAAAGGAAGAAAT  
ACATATTTTTTAAAGGATTTTAGTAGATTGTTCTGAAAAAATTAACACCAACTTACCCTCACATGACTATTTTGTCT  
TTTTCTCAGTATACTTTTTAATAGATTGCATTATAAAATTTAATATTTACCATTTAAATAAGTGAAAGCAATGTCTAA  
TTGCAGTTTTAATTTTATTTTATTAAGGAAGTTAATCTTTTTTTTTTAGCTGAAGTCGAAAATATGTTTCTCTCTTT

Fig. 6. [16]

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TTCATTGAAGCTCATTAGTTTCCAAAAATGTGTCCTCATTTTCATACAAAGTATCTTTGAACCATTGCCAGGTCATAGAA  
GTGACTCTTGAAGATCTTCTTCTCTGGGATCAAGCTTCACATCTCGTTCTCTGGCTTCATACCCTTCTCTCTACAC  
ATCTCAATTAAGTAAGCTTCTTCTTCTCTGAAATTATAATCATCTTTAGGCTCCAGATATAGGTGACCTGTGC  
CATCTAGTCTGACTTCCAGTTTGCAAATTATCTTCAAAAAGTGAAACAGCTTTTACTTTCTACTTTATAAATTCATAC  
GTGCTCAGGAGGACTTTTATTAAAGATTGGGACATATTGCTTAGTTAGTCTCTAGGGTGGAAATCATAATTAATGAAAGAA  
CTCTGTCTGATGGAAGGCTTAGTCTAACAATCATCTAAACTTTCATTAGACATTGTGTAAATCCCCATGGACACTGTT  
GAAGAGACACTTGTATTAGGCAGATCGTGACAACCTCAGCTTTGGCCATCATACATCTCCAGAGACTCCTCAAACTCAA  
GACAGACTTTCTACAGGAAGGAATGGCTGTTTCTATTTCAGAAATATTACTGATACCAGAGCTTTGCTGCATCTTCATGT  
ACTTTCTTTTATTTTATTTTATTTTATTTTACAGACAAAATCTTGCTCTGTTGCCCAGGCTGGAGTGCAGTGGCATCAT  
CATAGTTCACTGTACCTCAAACTCCTGGGCTCAAGTGATCCTCTGCCCCGGCCTTCCGGAGTGCTAGGATTACAGGA  
GTGAGCCACACACCCAGTCTTCATGTACTTTCTTATGTAAATTTATTTTGTGTTGAGATTTTCTTTGTGATGGAATAAG  
CAATTCCTTCTTAACCTCATTTCCCGAGACATTTTGGAAATTTGCAATATATATGAAAAAGCACTTATTCTCAGTGATG  
GAAACACCATTATTTCTTTTACTAGAATGTGATCTTCTGGTTTTAATATTTATGTCTCTGTGCCAAGGTGAAAAATATTG  
TAGAAATGAAAGTATAATGAGAGAGAATCCAGATAATAAGATTTTCAATAAACAAAAAAGAAGTATGTATAGGAGTCC  
TGTCTGCTGCAAAATTTTAAAGATGGTTTTCTGTGCAACATCAGTTGTCTATTGTTTAAAGCTTTCTTACTCATATACTTAAT  
GACACAAATGATTGAGAAGATAGTAGAGACTGAAACTAGAACCTGTGATTAAATAGCTTTTACTCATATACTTAAT  
CCACAGTAAATTATTAGCAAATTACATTTTTCATAGTATTTTCAAGATTTAAAGATCATAGTCAGGGCTTTAAAGGAATCCA  
GTTGTTTTAACAGTGCTGGAGGCAAGCGTTCTAGCAGCAATCACCTGTGAGATGACTTAGGTTGGATTGTTTGCACC  
ACACACTTTACTATAGTTACATGTCTTTTCATGTCCCTTTGTATCTCTGACTCAGTTTCTCTCATCAGTGGAATAGCAGA  
ACTTACATTTTAGTGAGGAGGATTAAATAATGTACATGAAATCAAATATATAAGTCAGCACTCAATAAATAATAGTTTG  
TCATCATATTACTATAGTAAATGACCCTATCTGAAATGGGATAAAAAAGGAAAGTGAAATTACTAAATAAATATGA  
GCGTACAAAGACCTGACAAATTTAGATACAAATATCTACTCTGTCTCAAAATAGTGTCTTCTGAAGCTTTAGTCAGAAT  
ATTATGGTGACATTTCTGCTAGATTTGTCTAGTTGCTGGTTTTGAGGAAGAACCTTAGGCTACACATTTCTCTTGGC  
TCTACAAAAGGCTGTGGCAGTGGGTCCCTGAGTAAACCACAGAAAGAACCTAAGGGGCACCTCTGTTTTTCAAGTTAAT  
CAGTTTTAGCTCAACTGGGATTTAATCCTGAAAATCTAAATTACATTTACAGACTTTAAGTTATTGTGAATATTTACAC  
TACATGGGAGAATTACCAAAATATATTCTGTTACTCATACAGTTTTCGAAAAACAGGTGAGACATCTTCCAGTTAAATTC  
ATCTTCTCTTTATGTTAATCTATTGAAGAATTCTAAACATTGTTTTGCACCAAAATTGCTCCCTTAAGTTTTAAGAGCC  
ACCTAGTTTGGGCATCAGATGTTCTCTTTATTTCTGTAAAAATCTTGCAAAATTCCTCCAGAAAGAAATGTAGAGAA  
TACTAGGCTATTTTCACAGAAAAGGCTTGCTGCCCTTTCTGTATAACCAAGGTAGTTATTATTCTTGGCTGAGCCTGTCCC  
AGAAAGAGTCTTAGGTGACCTGGTGTGGGAATTGCTAAATCTCAGGCTACTCAGACTGTCTGCTGTGCTGTGGG  
CACTGCAGTCTCCAGAGCAGGCTGTGAGCATCTACCGTGCTCTGAGTAGGTCCACTGGGAACCTGGTGGAGTGAC  
ATCATGTATCAGCCTCTAGCAGCAACTCCTCTCTGTAGCCCCATGTCTTCTGTGGGTACAAAGGAACAAGTGCTACAG  
GGCATGTCTGTAATCGTTATCCCAAGGGCAGCTCCACAGGCATCTAAGGGTGAAAGGTACTGCCAGTCTGTTGGGTTT  
GTTATTTCCATAGAGCTACACAGGAATAACACCACCAAAAAATAACACATTCAAACTCAGAGGGCAATCTTCCCTAACT  
ATTCATAGGCACAGTCAGGCATTCTATACATATACCAGCTCTTTGCTAAGCATAGTGAATGCCCTTTTACATTGCA  
ATTAATTATTAGCCAACATTGAATAATTATTGGTGAGAGGGTAAAGGGCAAGTGAAATAAAAAATAGAGCTGGTTTATTT  
TTAGGAAGACACTATTTTAAATGTGTTGATTAATCAGACAGGTGTTTTAAAGCAATTTGTTAGAGTCAATTCACAGAAAAT  
CTCTTTTACATGCAGGTTACAGCCAAAGAAAGAAATAATAGCCAACACATTTACGATTTCAATTGCAAAAAATGTCATA  
TTTTTGAACCTGTGTTGGGTATTTGAAAAATATTAGCTCTACTAGGTCCAGTTAAAGCTTTTAATTCTATAAGGTTTCAG  
ACTACCAGCTGACCACTGCTCAGCATCCCCCTGGACTCCAAGGGTTTCTCTAAGACATCTAAGGAGAATGTCTACCCGC  
ACATCGCACTAATGCCCATGACTGCACTGCTTGAACCATGAGGTTATTGAACAGAAAGCAAAATCCTTTTCTGAAGAGCC  
TCCAAGATGTGGATATTTTCAGTTAATTTCAGTCCCTGCCAGCTCAGAAGAATGATGCTGTGCTGTGCTGTGTTCCCAT  
GAATACTACACGCAGGGCACTGCTCAGTGACTCAGCCTTCCAGGGAGCCAGTCAGGGTTTTGAAGCTGCATCGTCCCTT  
TCATCCTTGAAGTCTTTTGGATTTTCATCAATGGCATGGAGGGATATTTTAAAAACAATGGAGATTTTTCAGGACTGGC  
AAAAGGGCTCCCTCGTCACAGTGCCAAAACCATCACAAACATAAGTTATGTTAAAAAAAATCCTAACTAAAAATATC  
TGGTACTTAGGGAATAAAAGACATCTCATGTTTGTCTATCATTTCCATCAGAGCTCAGGTCAATGGACAGAGATCAATA  
CCAAAACAACATGCATACCTTAGAGCATAAATTCAGATAAATGCTGGAGAATTAACATGTAGATAGAAGTACCATCATG  
CCTAAAACAAAACTCAGTCCAATGGTTGTTTTCAGTGAAGTACTAGCCTTCATAGAGAAAAGTTTTATTCTTTTCAAAC  
TGAAGTTAAAGATATTTCCGTGCTTCAATCGAAATTTCTATTTCATGATTTTGAAGTAGTGATTTAGAATCTTTAG  
GACTATAGAAAATCATTTTCTTCTTAAATGTTGTCTTAGTCCATAATTAGAAAAAAAATAGTAAGAAATTAACAAA  
CAAAAAGTTAATAGTATTATTACATATATAAATAATGGGCCATCATGGTATCTGATTTTGTATAAAAGGAAAAATATACT  
CTGGGATTATTTTCCAAATCTGGCACTCTATTATGAGTACCTAGACAGACACTAGAGTCTCATGGAATTTAGTATT  
AGAAATGCTACTTTGGAGTACATTTGATGTCAATGAAGTTAAAAAATTAAGGAAGTAGATTTTCAAAATAGGTAGCATA  
AAATGTAAATATTATGAATGTTGGAGCAAGAAGATCATCTAATGCCCTAGCAGTTCTTAATGTTGCTTGGGTGATGGAT  
CCCTTAAGAACACGATAAGAGTTTACCTTCTTCTCCCTAGAAAAATATACTGCTTTTCTTTTATAAATTAACAAATAA  
TATGAAGTTAATCTTAGTCCAGAAGTCTTAATAGCCCAAGAATAGAAATGTCAAATTCATCTCATATCATTAGTTTGT  
AATTTTCCGTGCTTCTTATATTACAGATAAGGAATTTAGGACACAGAGATATTAAGAAACTTTTCCGACGAAAAAATC  
CCAATTGAGCTTCTTATATTACAGATAAGGAATTTAGGACACAGAGATATTAAGAAACTTTTCCGACGAAAAAATC  
TGCTAGTTATTGAGCTGGGATTCAAATTCAGGTAGCTGATTCTAGTGTGATGTGCTAACCACAGACACTGCTGGCT  
AACCATGCCTACACTCATGCTCAAACTACGCTGTGATAGGTCTTATTAGCATCCCCATTTTACAGACGTGGAGATTGA

Fig. 6.162



[illegible]

Fig. 6.163

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CTCCCTTATATTTCTTCAATTCCTTATCATTTGAGTATCTAGTTAATGAGTTCTCATTTGATGTTATAGATTTTTTTAGC  
TCTTCCTCACCTGTATTCCTTGGAGTAAATTTTATGAATCTTAGAAACAGAGTCTGGCTGATAAATTTATTGGTGCATC  
AAACTCATTGAGAAATGTCTTCCAGTTTCATCTTCCAAATGTTACTAGTTCTAAAGGTAGTGTTGATAGTTCACACA  
AAAAATCAATACTGATTGAGAAATAACTTGCTCATCAGGGAAATAAACCTGGAAGGTTTTAGTCATAATTTATTATATA  
ATCCCTCCCTATGTGATATTGAGAGATGAAATTTGAGGTGAAAAAATCAAGTATTCTTTTCATATATTTTGAAAAATA  
TAAGAGTCTTTTGATGTATTCTGGGAGCTAGCATCTTGAAGAGGAAATAAAAAATGACTTATCTGGAGTTAGGAAGGTG  
CTAGTCCATCACCATAAACAGTTAAAGAGATAAAGAGTGTATTATCAGAAAGTACAAACAAAGTGATAACAAATAGAAT  
ATTATTCTCCATACCAAGCAAGTTACAGGTATCCCTGCTCTGGACAAATGCGTGATGTGTAAACCCAGATTGACCAAG  
GGCATAAGGGAGATGTAGATCTGTAGCTTTAGCACACATGACCAAGGTGGTGCACCTGGTGTAGGCTCTCGGCTGATTG  
CTGACTTTGCACACTTGCAGGGCATTTTCATGAATCTAAATTCGGGAATAAGATTTAGAAGCTGGCAGATGACGAAGAGA  
TTGTTTGGGCAACCAGGACTCTGTATGTGACATAATCAATGCTGAAGTTAGTTTCATCATCCCATTCCTGTATTTCCTCA  
AATCTGTAGTCTTAGGGCCTTATCTAGTGCTTTTACCAAGTGGGTGGGTGTAGAAAAAAGGACTAATACTCATT  
TTCTTTGAAATATAAGCTTTTGAAGAATATTTTAAAAAGGAGCTAACATTTTAGCTTTTCATGTAAAGTTTGAAAAA  
ATGCAATTTAGTACTTTGGAATGAGCATTTTAAAGCTCTTGTGACTTCCCTTGTATTTTAATGCAATTTCTAGAG  
ATGTCTGCTTCTGCATTGCTTCCCATGATTTACTTCAGTTGAAAGTTCAGCCAGATCCATTATTTCTTTCTTTGACA  
CATTATGCAAAATTAATGCAAAATTCAGTGATGAGAGGAAGAGGTCTCAGAGCATTGAGCAGATGCCGTGTGCGTAATA  
GAGTAAGGCAATTAACAAATTAATGTCAGCCACTGTGACTGTGTATTTCCCGTATTCTGAAAAGAAATCTGTCTGTG  
CTCATCACTACGAGATTTATTTTCCATTGATGTGTGGGAGATTTATGCAATTAATGTCGTACACATTGATGAGAGAA  
ACATGCACCTACAGAAATAATTTTATAGATTAGTGAGATATTTAATCTGACTTTCTTTCCACTAAATGATCCTT  
TGTAATGCTCTTCTCTTCCGCTGTATTGTAGTATGAACATCAGAATGGCTCAGTAAGCTGGAAGAGCAAAACCATGTC  
TGTGTGTAGAATTTCAATGCCAAAAGAGAAATACCACTTATCTTCCACTTCTATAAAATAGCAAGTCAATGATCATT  
AACAAGAGCAAGGGGTGAATTCATGATCTCTAAGATTTTTTCCAGCTAAAAATGATGATTCTTATCTTATCTACTAG  
GAAATAGTGGTATTGAAGTAGAATTATGAGCTCTACATTCAGTCTACTTTTACATCGGATTGTCTCTCATTTTGGGA  
GGGTAAATCTCTTTAGATTCTCTAGTCTTAAGCTGTAAATATGCTTATAGTTGTCTATTTTAGTGAACAAACAGAAA  
AAAAGATTGCCTGCATCATATGTAATTTTGTTCATCCAAAGGGCAATATCGTAGAATACTTGACTCATAGTTTAAAT  
GATCATTTTTATTGAGTTCAAATTAAGTCTTCTGTAGATATAATAATTATGTGAATCAAAAATATGTAATTTGTGTGAAG  
AAATGCTCTTTCTTTTCCAGGCTTGCCTTCAAAAAAGTTAGTCTCTACTGAATGGCAATAATTTCTTCTTCTGCCTC  
CTAAGAATACATTGAGGATATAAAATTTATGAGCATAGAATGCTCTTATTTTCAAAACATTACAGTAGGCATTGGCCTG  
AGCAATAATTTGTAATGTTTCAATTTTAGAGAATGGGTAGATTATTAATATGAATATGAAATTTTCACTTCTGCTGG  
TTTTTCTGTGGGATATAATCTCTGGTCTTAAAAATTAATTTTAGTAATGGATTTTCAAGTTCCCTTGGAGAGCATG  
CTTGGACATTTTTTGTGACATACACTCTTGGAGTTTCTTCTTCAATTTCTTTTTCATCACTCATTTTGACTTTTCAAGT  
TCTTAAATATTTGTTATTACGTGTATCTTTGTAAATAAAAGTGAGGCTTAAGAAGTTTGAATTTGTTTGGATGGAAC  
CTTGTAAAGTACAAAGCACACATGTGTTGACAGCAGCTAGAGGAAGCGTGATAGTGTGGAAGAAACAGAAGTCCAAA  
GACCTAGGGGTACATCAAGTTCCATTATTTAATTTGTCATCTTTGTCTTGTCTACTGAAAGTATGGTCCACAGACCATTT  
GCATCAGCATTGCCAGGGAGCTGGTTAGAAGGGAGAATCTCAGGCCCTTCTAGACTTACTGGATCAGAGCCCGCATTT  
TGGCAACATTACCAGGAATCATATACACACTCAAATTTGCCAGGCTCTGAATCTATAATCTCCAGCATTTCTGATTTC  
TCCAGTCCCTCTTTCTCATCTTTGAAACAGAGTAATTTCTACCTCACAAGTCTAGTCGAGAATTAATAACAAACATG  
TAAAGCTGCTGTGTTCCGTGCTGCGCTGGCATACATGGCTGTCCCATTCCTGCCAACACACACCTTCAAGCAAGACAAT  
GAGAGAGGCTGAGTGGGAGAGAGGGTGAATAAATGTTAATAACTCATTAGAGTTGGCATTTTTTTTCTTTTACTTG  
TCTCTATTATATAGGGTACTGTATTAATTTGTGCAATACCTTTGCTTTTAAATAATACTACTGGGATAAAAGTGAGATT  
CTAATCTCATATATTTTCAAGATAAGATTTCAGATCAGAGTTTAAAGAACCACTATAAAAAATCAAATCCACATAA  
ATTCAGAGGAAAATATCCTCAATGCTTATATAATATTGATGATGTTTAAAGTATACCTTAAGCACAACCTCAAAGGAA  
GAAATCATTAGGGAAAATACTGACATATTTGAGTACATATATGTTTTTAAATTTAATTTACTTGAAAAGGAATGAAGAT  
AATTAAGGAAGTCAAAATTTGAAAAAATATATGATGATAGACAAAGAGTTGATAAATTTAACAATAGAAACAGGTTT  
TACAAGACAATAAAAGGATAAATGTAATGATTTTCAATAGATATAAGACATTAATAGGTGGGCATGTAAAAATGTCAA  
GATAACATGAAAAATTAGTTTTACTACTCATAAAAGACATGCAAGTGAACAAACCAAGATGCCATCTCCAGTCTATC  
AGATTTCTCTAAAAATGAGAAAGCGCTCATAACAGTGAAGGAGAAAAGGATCTGCTTTCATCTTGGTTAAGATATACA  
TTGCAACAATATTTTATGGGAAATCTTTGGCTATATCTATCACTATGAATTTATGCATACATTTTCAACCAATAATTA  
TACTTTTGAAGAAGTTATCCTAAGGAATTAATCTAAACTGAAATGATACATGTTTCAAAATTTTCAATTAAGAAAAACAC  
CAAATGTACCATAAATGGGAATTTTCAATAATGTAATTTATGTCATATGATAGAAATTAAGGACCCCATTAATC  
ATGTTGTAAACAATATTTTTATTGAATTTTTTAAATGAAACCAAAAAAGAGCAAGATAAACTCAGTATACATAGCATGT  
CATTTTGTCAAATGTGTATGCAATGTGTAAATGATATTTTTTAAAGATTGGAAGCTGGTACACTAAAAGTGAATGTTA  
ATTCTGGGTTATGTTTTTCCAAATTTTTGCTGTTTCTGCTGCTGCTTTGATTTTAAATTGAGCATACATTTATA  
GTTTAAAGACTGTTAAAGTGGCACTTAGATATAGCTTAAAAATAATTTTAAATAGCACAGGGAAATTTTTTATTAATG  
CTAGTTAAATTAGACGAAAAATATAAAATTTTAAATGGCAGAAATATTTCAATTTATAACATATGCATAGGAACTGAAAA  
GAGTAGTTAGCTCTAAATATGGGATTTATGGATAAATTTTATTTTCACTTTTTTATTTTCAAAATTTTATAATTAG  
CTTTAGGATTTTTATAACCAGAACAAATTAATTTAAGACTCCCTTCTAAACTTTTCTGCTTATTTTCAATCTCAAAAT  
GTGAATTTGTATGGCTCTATATTTCAATCTAATTTTACAGACATTAAATTTCTCTTGAATTCAGTGAAAAATTAGC  
AGAGTCGAAGTTACACTTCTGTATGGCATTTAAATTCCTCCTCCAGAAATACAGCCACTGTTCTACAGTACAGAGGAGT  
CCTTCATATCACGATTTTCATTGTGTCTAAGAGGCATGTGTTTCCACTTTGTCTATTATTGGTCTAAAGGATTTTTCT

Fig. 6.164



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TCTATTTTGTCTGCTGTTTTTGTACAAACATATAAAGAAAGGTGTTAAGGGAGTGTAAATATAATCAAGGTGTTAAGG  
AGAAGAGCCCAGAGAGAGAAGCTCTTAATCTTTTCATCTGGTCCAGTTGTCAAAGTCTTTTGTCTTTAGCCATCACTTTT  
TTAATCAGAGACATATAATCTATTAACATATGGGAACAAGAACCACAGATTTAGCCTGTGCTTATCTGGAACCTCCCCCT  
AAAATACTACTGAACGACTCTTTTCTTTTATTCCTGTCTCTTTTCTGTTGCAAACTGATTGTCCACTATAACCTGG  
AGAGGGGACTCAATTTTGTAGAACTGTCTTATACACCTCTTAATTAGTTACCTATTGCTGCATATACCCAAAATTTAGC  
AGCTTAAACAATAATGAAATTTTATTATGCCACAGTTTCTTTAGGTCTGTAGTAATTTAAGAGAACTTAGCTGGGT  
GATTATAGCTGACTCTCTCATGATATTACAGTCAATATACATCAGGACTGCATTCTTCTGAATCTTAGCTAGAGCTGGA  
AGATTCACTTCCAAGATGGCTCCCTCACATGGCTGGGCACATTAGTGCCTGCTGTTGGGGGAGACTTCAATCTTTGTT  
GGGTGGTCTTCTCCATGGGGCAGCTTAAGGATCTTCATGGTTTGTGGGCTGTTTCACAAAGTGTGCGTGATCCATAGGA  
GATTAAGGTGGAAGCTGCAATGTCTTTATGATAGAGCCTCAAAGTCAACAATGTCATTCCCAACGTATCCTTTTTT  
TCACATAGGTGAGCCCTACGCAATGTGAGAGTGAGGAAGGGACTACAGAAAAGAAATGAATCCCAGAGATGAGTAGGAT  
CATATTGGGTGCCATCTTGGAGGCTGGCTACCACTGAAGAAGACTGCTTTCTGGCCCTCAGTGATTTACTTCCATCTCA  
CATGCAAAACATACTCCCTTTATTGTGGTTCCCAAGAGTCTCATTCTATTATGGCATCAGCTCGAAGTCCAAGATCTTA  
TCATCTAAGCCAGGTGTACTAGTTTCTTTGTCTGTCTAACAAATAATTTAAAAAATGTAGCAGCTTAAGATAACACCCA  
TTACATCTGTACACCTCTGTAGGTGAGAAGTGTGGCAAGGCTAGCTGGGTCTTAGCTCGAGGTTGAAACCAAGGTG  
TTAGCCATGGCTGCGGTCTTATGTGGAGCTGAGGGTCTCTTTCAAGCTCATCCAGGTTGTTGGCAGAATTCAGTCAC  
TTGTGACTGACAGACTGGTGTCTTAGAGACCACCTGCCATTCTGTACTGCGTAACCTCTTCACAATATGGCAGTTTA  
CTCCTTCAAGGCCAACAGAAGATCTTCTACTGCTTGGGTCTCTGACTTCATTGACCTGACCTCTAAACCCAGAT  
TTAAAGGTTTTATATGATTATATCTGGCCACAGCAAAATAGTCCTTTTTATTAAGTCAAAGCCAGCTGTTTAGTAAC  
CTTAATTATATCTGAAAAAACAGAATCAAAGGAGTGGTATCTCGTAGTATTCACAGATTCTATCCACACTTCAGAAGT  
GGAAATTACACAAGCCCTGAACATGAGGAGATGGGAATCTTAGAATCTGTCTAACATACAGGCTATGTGCAAAATAAG  
ATCAATCTCTGTAGTTTACTCTTATGGGGTAAATTAATCCCAAACTAGTGGCTTAAACCAATGACATAACCTAAC  
TTCTCAGTTTCTATGGGTCAAGAATTCAGAAGCATCTTCTTCAAGTGTATGGCTTTGGCACTCATATGAAGTTGCAG  
TTAAGAAGTCAGTCAGGTGATAGAAATATAAAGCCTGACTGGGCTGGAGGATGTGCTTCAAGGTGATTTACTCAC  
ATGATCAAGTTGGTATTGGCTGTGTCAGGCAGGTCTCATTCTTCCGCAATGAAATGCTCTCCAGGCTGCATGAGTGT  
CTTCATAACATGGTTGCTGATTTACATTGGATGGAGAGATCAAAGAGGATGAGAGGAAAGCAGCAATGTGTTATAGGAC  
CCAACCTCAAAGTTACACATCATTGCTTCTGCCCTATTCTGTGGGCAATCCTGATGCAATATAGGAGGCACCATGAA  
TAGCAGGAGGCAAAATATCATCTGGGCTTTCTTGTAACTCAGTTAAACAACAACAAAACAAATATTTAAAAAATAAG  
GAAAGAGATTCTGGAATATTTCCATTCTCTGTACCCACTGCCATAGTCTACTCAAGTTCTCATCTCCTATTGGAC  
CTCTGCGGTAGCTTTATAAGTCTCTGTCTTGTTCATGTCATCCCTTTCAAACGCTTCAAATAGCCTCCTTAAAGC  
CATGACTCCTCCACGGTTATAACCTGTCAGGTAAAGGCATTTGAGGACATAATCTGTACCATCTCTGGCGTCATCCCT  
TTCATTCCCTTTCACCTCCCCAACTATTTTTGTATTTTCAAGTCATGCTGGACCTCTTAATGTTTCCCCAAAACATCCTA  
AGCAATTTACAGTCTCTATGCTTTTCTTTCTGTTCTCTTTGCTGAAATAAGAAGCAGAGATAATAGTGACTATGC  
AAGTCTTAAATCGAGGACAGCCACAGTGCTAAATCACACATTGGATAGTTCAATTTTATTCTTATAACAACCTTTGTG  
GTAATCTTATTACCATGCTCATTTTACAAATGGGCATCTTAAACCGATGTGCATAATGATTAACCAATAGACTCAA  
GAAAGATTCTGAGGTTCTGGCGTAACCTCTTGTATTCTCTATGCAACTAGCTTAAATAAACAACCTTTGATTATTC  
TAATCTATTAACAGTTTTTCAAGTGTCTGACCAATCAGTTGAATTTTATTTTTAAATATGTGTGTGTGTGCATGT  
GTCAGTATGTACGTGTTAAAGAGTAGAGGGAGGAAGTTGAAATCTGACATTTGATTTATTTCTCTGGGACAAAGGAA  
GTTTGGATATGTCAAACGTCTGGCTAATCAACAGCTTAATCAATGCAATCTCTAGTATGGATATAGTTATATTTGCC  
CCCCTCTTCTTTCAAACTTCTTTCCAGTCTCATGACCAGCTTATTGGCTTATATTACCAAGTAAATATATCAACTG  
CCCATATGTATAGTACCCAGACAATGAGAACACTGCCTAAATATTGTGTTTTCAATACTACTTGTCTTTAGCAACAAAT  
CATAGCACCAGCCTAACTTTAAAAATTCATGTCACTCAACTTAACTATAACAAAATAGTGTTTACAGAAGAGT  
TTCAAAACATTTTTATGCATTAGACACTTCAGAAATTCTCTTAAACCAACAAACAAATAAATAAGGGACAAACAA  
TAGAAAACGTCAGGCACCAAACTGTGAACCTCTTTTGTCCATGTATGATTTAAAAAATAAACTCACTGATGGTAAT  
TTAAGAAATTTGACCTTTAGGAAAATCAGGCTGAGGCTCATCTTTGTACTTTTTAAACAAGTCAATAAAACATATAAA  
TAATAGAGATGAGTGCCGCTCACAGGGGACACTCATATTTCTAGGAGCCTGTGGATATAAACAATGAATTTCTAGAAC  
ACAGAGCACATTTCTACATGATCTCCTTTTCTTACAAGTTATTTATGTTTTACTGGAAATATTAACCTTCAATGTCTC  
TTTGTGTCTCTGTTTCTTAAATTTTTATTTTTATCATCAGTCATTGTTCAATAACTCAAATCATATAAAATAAAAC  
AGTTTCAACATCATTCGCTACTCAAGATGATCTCTATTAATAATGATTTTTTCTTGAAGGATCTTATAATTTTT  
TTTAGTTTTCCAGATGACTATTTAAACCAAAATGTTTAAATGAATGATTAATGAGTCTTTTATCTTATTATCCACCTG  
CCTACTGCAAAAAGACATGAATTTAATACATTTTAGATTTTAAACAGTTGTATATCTGTAAAAAACAATTTTTACAGG  
TTTCATATTCTGGACACTAGAAAACACTTCTCTCTCACAGCGCGAGTTGTATGAAAAGGCAGCTCAATTGTCTTTCT  
TGAGCAGCCTTGTGTGCTGGGTATTCCCTTCCATCTCTACCCATGGAGTTCATATTCTGTTGTGTCATGTCACCACCT  
CTGTCAACGAAATAGGTTCTGCCATTTCTCAAATTTTATGGAGAATTATCCTGATGAGTTAAGGCAGAGGTTGAAACT  
TGCAGCCCTTACCCCGTTACGGATTTTATTTTTAAACCCAGTGTTTTTGAACACTTTACAGCTGATTTTCTATTCT  
AATGGATGATTAATCTTTTAAATACTTCTATATTAGCCCTCTTAAGGGGTATGAAGTGGTGTCTCATTGTAGT  
TTTGTGTCTTTACTCACTCTTAATACCGTTATTATAGTGTATTATTGTTTAAACCTGTGATATATTCTTTCTTTATT  
TCTACATATACATAGATAACATGCAGTTTGATAATCTGCATTTAATCGCATTAGAAAGGTATTTTGTATGTCTATTA  
ATTTTTTTGTGAACATCATTTTGTAGTGGCTGCAAAAACCTTACATAAAGACAGACATGCTCTAATATATGTGTGTGATA  
TTTTAACATAATATTGGCACACCAAAAATAATGGATTTAATGCAACTAGCAATGATAATGCTCAAACAACAGGAGTGTCT

Fig. 6.165

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ATGAAGACAATGAAAACAGGTGAGTTGTGTCAGAACACCTTCTGTCTATTACATTAACTTTTTTAAAGCACTAAATTCACCTTGA  
AATTACAATAAACAGATAAGTACAAGCATTAGATAATTTGACCTATCAGATATCCCAAAGGCATAAACTATCACTAGA  
GGGTCTTTTCTTTATGCAATTAGGTGACCAGTGAAGTCTTATTTTTTAAAGCTTTTAAAAATAAAAAATAGCTTTAGGGA  
TAAAACCAGCCAGATTTTATCGTCAAAAACATGTTCAAGTTCAGCTAAGCCTTGCTTTCTTTTGAAGAAATGCTCTT  
TATAATGCTCACCAATGGATTTAGAAATATCCATTGTAATCATGAAGATCTCAATTATATGTTATGAAATAAGAAACA  
TAATGAAATACTTGAACCTTCTGCCCCGCATAGCAGATATTTTTGTATTTATGATATTACAGTAAAAAAGCTGTG  
CTGAGAAGCTCAAAATAGTATTTGTATCTTAGTGTTTGGAGCAGAGGAATTGGCATTGGCATGATTTTTCTATAACTT  
GGCGCAGGCCAATGGTTTTCAGGCAGGACTTTTCAGAGCAGACTTCTGTCAAATTTGCCATATGGAGTTACTGGGCTCAGA  
TTATAGAGGTTTTCTGTTTGTGCTAATTTGGGAATTATCAGTGCTCTCCAGGATTTTCTCCAAAAACAAAGAAC  
TGTTTCAGAAAGAACTGACACTTCAGGAAGAAAAGTAGTTTGATATTGAGAGGTTTATAGTGGTTTTCTAATATTTCTAAA  
AGGTACCATGACTCGTGAAGAATTTGACTGGTAAAAAGAAAGGTTCTGTTATCCCTGGAACACAGCTAACAGTCTGG  
CATGTAGCCTTACCTGAAGTGGTACCTTCCCGTACACCTCACACTTAGCATTCTGCACAGCCAAAGACCTGTGCTAGTT  
ATTGGCCAGCCTGAAGAATGAGGTTGAATCAACTCAGGGACTGAAATCTACTTTATAGCATTTTAAAAATATTGTAGAT  
CCAACCTTGAGTTGACCTACTCCGAGGTTTCAGGGTGATTAGGTGTGAGATACAATGGGAATGAATATCTGAAAACCC  
TTTGAGAAAGGAGGAGGAGGAGGAAGAATAAATCCAAATTTTACAGGTTTCATATTTCTGGACACTAGAAAACACTTC  
CTCCTCACAGCGCCGAGTTGTATGAAAAGGCAGCTCAATTTGTCTTCTCTGAGCAGCCTTGTGTGCTGGGTATTCCCT  
TCCATCTCTACCCATGGAGTTTCATATTCTGTTCTCATGTACCACCTCTGTCAACGAAATAGGCTCTGCCATTTCTC  
AAATTTTATGGAGAATTATCCTGATGAGTTAAGGCAGAGGTTGAAAACCTCGCAGCCCTTGCTCCAATTACAGATTTTAT  
TTTTAAACCCAGTGTTTTTTAAAAAATCGAGGGAGTTTACACAAAAATTCATGTTTTCTGTTTCTCTAGAAAACAGCA  
AATCTGGCAACACCTTGCTCACATTCCCACCTACCAAGAATGCTGCACATTAAATGGTGGCTTTTTCTTTAGGTGACTCT  
AATTCAGTTGGGTCTCCATGTGACGTTTCAGCCTTTGCACCCTACTTGTCCGCTGCAGGCCCAGGAGCTCTCTACTCCT  
CATATGCATTACAGGACCCCATGACATGTAAGATGTTTTCTCAGGAGCAGACACAGGCAATATCTCTTGTGCT  
TAGGAGCAAGTCTTCTGAGAATCAATGATGACAAATATCTTAAATGGTCTACTCGATGGTTCTGAAAATGTAAGAGCTA  
AACTACCTGTATCAAAATCATCTTGGGGGCTTATTTAAACATATATGATAAGGCCCCACCTCAACCTAAGGAGTCAG  
AATTTCTACGGAAGGCTTGGGAATAGGAACATTAAACACAAGCATCCCGGGTGGTTTTTATGAAACAAAGCTTGAGAAT  
TATTGAATCTTCTCCGATCTGACAGCTCTTCTCTGCGGAGACCCCAATTAGAGGGAAGTATGAGTTTATAGGAATAC  
TGTAATTTAACTCATCAGTCCAGCAGTGTGAAAAATGCAGAAATTTGTCTTATCAAAAGCCAATTAATGCTAACCTT  
TTCAGTGTGTGTCAGTACCACCATCGGTAAGGTAAATAAACAGGCAGTTTTCATATAATCTAGTGATTTTTAATTTA  
GTTTTTTCCCTTACTCATCTTAAAAAAGCAGGAGTCTATGGGCTTTTGTATCTATTTTAGCTAGTTATTATTTTAA  
CCCCTATCTTTAGTGAGAAATTAATATCACCTTCTATTTGCTTTTATTCCTAATATCTGAATGGTTTTAGCTTTGAC  
GCAATTAGCATGTAGAGCATGCTCACCTACTGTAATCTCCAGATGAGTCACTCAGCTCCAGCACATAACTGCTTCTGG  
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ATTACCAATAATAGGCAGTTTTATTCACTCTAAGTGATTTTTTACATAAAACTGACAAGGCCGTAAATTTGTATATAGAA  
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TTTTAGCAATACATTAATGTTACATATGTTAAATTTACTGTATTTTTGTTCCAGCCAGCTCTTGTGTTGGCAAA  
TCTGCTAAATTTAAGTTTGCATTGTATTACATGTGTTGCTTATTTCTGAGATGTCCCAATATATTTAGCCATCAAA  
AAATAGAAGTTTCACTCTCTGAGGCTCAGTATCCACACTTGTATCATGCAAGAGACATGCAGTTGAGAAAATAGGCA  
ACTGCCATTCTATCTGTGATTGCTGTTTCATGGAAGAAGTAAAAATGAGCTGGGACAATATATAGGTGGCGCCAGGGATG  
GCTCCTTGAAGGAAGTGATCTCACAGCTCAGACCTGAAAGCTGAGTGGAAGTTACCAGAGGAAAAGAGAAAGGGAATGC  
ATTGGTTTTCTATTGCTGGGTCAGAACTACCACTAAGTGGCTTAAAGCACCATTCTATCTCATGTTTTCCCT  
GGGTGAGGAGTCAAGTGCATCAGAGTCTCAAGAGGCTGACATCAGGTGTTTGCAGATGGCATTCTATGCTGGGGCTC  
AGGTCCTCTTTTCAAGCTCCTTCAAGTTGTTGGCAGAAATTTAGTTGCTGTGTTTTAGGACCGAGGTTCCACTTTCTT  
GCTGATCACCAGCCTGGGGCAGCTCTCAGCCCTTGAGGCCACTGTCAGTTCTCTATCCTTTGGCAGATCCTCTCACA  
CGTGGCCACTTACTTCAAGACCAGCAAGAGAATGTTCTCTTTCAGGAAGGGCCCACTCTCTCTTATGGATGTTCTTCT  
GATTCAGTCAAGGCCACCCAAAATAATTGCCATTTTTGGTTAACTCAAAAATCAACTGATTTGAGATCCTTAATTACAT  
CAGCAAAATCCCTCCACCTTCTCCATACATAATAACCTAATCATGGGAGTGAAGTTTCATCTGTTCTGTGATTAGGCTC  
ACATATAAGAGAAGGAGATCATATAGGACATGCATGTAGAGGATAGAATCTTGGGGGCCATCTTAAATTTGTGCTTACC  
ACAAGGAAGGATTTTCCAGGCAGGAAGAACCAGATATATGAAGGAGGCCATAATGACAGGATAGCAATTTCCAGTGCT  
GAGGCTAAGGCTGGAATGCTGACCTGGCCAGATCATGCACTGCTAGGTTAATGGCCTATGCATACTCTATTATGCAAT  
TATTAATAATACCTGTTTACAAAGAATATTTGAAATATTAATAATGGAAGGAGGCAATGCAATCCGTAATAATTAATGGGAA  
AATCAGGATATGTGTTTATATAACATAGTATCAGTTTTGGAAATATATATGCATATCTTAAAGACTAGAAATTAATAC  
ATCCATCTGTTAGCCATGGATATCTCTGGGTGAGAAAGTATGGATGAGTTAGAGATTCTTTGTCCCTTTTCTTAGTTCT  
AAAATTTGCCACAATAAATATGATTCTCTTATAATAATTAATTAATAAAACCTATTTCATGGTACTTGCAAAAACAAA  
TGAATTTGAGCAGTCTCTTGAAGGAATCAAATTTGTACTCCAGGTGTTTGAAGGTTGAAAAACAAGCTCAGGAATT  
AGCTGCGCATGATCTGTACAAACAAGGGGATCAGTCAGTGGAATGAAGTCCAGCTTCAGCCAAGGGTGGTGAGTATAA  
CAGACCTACTCTGATATGTTTCACTACTAAACATGAGCAAGAAATCTAGTGTTTAAATTTATGGAGGCATTAAAGCAAT  
TAACCTCCCTCTACCTCAATTTTCTTATATCTAAAAATGAGGGGAGCAAAAATTCATCTTGTACAGGTTCAATTG  
CAAGTAGCATGCAAGCAAGTAGGCTGAACTCTTGTCTGTCAATCTAGCTCCTTCTGGATGGGGTATTTAATCAGCTCT  
CCTTCCCAAGCACCAGTGGACTTGAAGCTCACAGTTAGACAGAGATGGCTAGAGGTGCCAAGTGCTGTTTATCATAGG  
TGACATCACCTGTGTGCTCAGAGTTATAACATAGGCAGTTGCTTACTGCCAATCCATTACAACCTTTCAGAGGTGTT

Fig. 6. 166

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CACTTAGGAAGAGGAGGAAAGAGTTTTTTGAGAACCAGATGGGAACCTTAGAAATAAGTAACATTGACAACCAAATCCTT  
CAGACACATCTTCAAGTTTCAAGAGAGCAGTTAACTAAAAAGAAAAATGTATTTTTAGAAATTGTTTGGGAGGTGAAAG  
GATTTTTCTGGGGGGGAGTAGGGTAGGGAATGGATAGAGATGATTTTTTTTGGCTCTGCAATATCTCAGAGATCTTTG  
AGTTGAAATATAACAAAATGTATTTCTCTCTCTGCTCCAAAACTGAAAAGCAAGTGCACTAGAAAAATGTCAGAGTT  
GGCCACTGAACAGACCATATTTCTAATTCATGGCAAGATGGCTAAAAATAAAAAATCTTGAAATACGTATTTAAAAATTA  
GATTTTGACCTTTGATAGGGCTTATCATGCTATTTATATTGTAGCAGAAGGAACGTATTTTTTAGTAGTTGCCTCATCA  
AAGACATGACTCACATTTCCCTTAAGCATTACACCATATGTTTCTGAGGTAAAAAATAAAATAAAATTTTATATT  
TTTTATACAATTAGTGAAATGTGAGCAAAAAATATAAGAAATCATTTAAAAAATATTTTGGGGAGGATGTGGCTAGAA  
ATGTTGTTTTCTAGAAATTGAAATATGTTAGCTATTTGGCCAGTGTAGCCATTAGGTACATTTATGAATATAGATGAG  
AAGTAATCATTGTGATGCTAGTTTATCATTAAAGAAAAAGCAGAATTCAAAAGTTTAGCAATGAAACACTGGTACTA  
CTGAAACTCACTTTATATTTGAAATGTGAATGTGAGTTTAAAAAAGCTTTTGTAGACTAAGTAAAGAAATCATTTT  
AACATTTAAAAAGAAAAATATTTATTTAAGTGACATTTGGTGACATTATTATATGTGTACAAGCTGTGACTATAAGATA  
ATGAGACAAATTATTATGTGGCCAGTGGAAATTAAATTTATCTTTATGATTACTAGCAACAGGGACTATTTTATTCAAC  
TATCTTTACATAATACAAAATTATGTAAAATTTCTAGGAAATTCATATTTCCACTTAAATATGAGGAAGTACATTTTG  
AAAAAATATTAAACATATGAAATCAGCATCCCACTTAAGGAATCCCAAGTTTCCCACTTCCCACTTCCCACTTCCAG  
TTTTATTTCAATTGGTACTTTTTCTAGGGCAGTAGATTTAGGAATAGAAAACAGACTCTACACATGGAATACACTAAAGT  
CTTGAGGAGGTGTGATATTTCCCTAAGTTTGGATAGGTGGTATCATCTTTTCACTCACTCTTGACTCTGCATTAGACTC  
TCTACCTAATGATCCCAAGTCAATTTCACTTCTGCCTTCTTAACATTTTGAAGATGTCCTCTAAAAATTTCAAGTCCAC  
CATCTCTGCCTCCGAACCTCACCTCCCTGACTTTCACTCTTGAAGCACCTTAACAACCCCTCCCTCTCTGTGCATGTTCC  
ACCTGGAAACCAGGGTGATCACTCTGAAATGCCAATCTGATCAGTCACTTTCCCTACTTTTGAACCTTCAATAACTTCCT  
AGCCTTATCTAGAAACCAITCCAACATATCACCTAGGCAAGGAACCCCTTTCTTACCTGGCTCCTACTTATCCC  
TCCAGATTTCACTTTTGCACCTCCCACTTCTCTCTCTGAGCCCTTCCCTGCACACAGCGAGTCTTCACTCTTGC  
CAAACCTCTTCGACGCTTCTTGAGTGACCTTGCTCTCTGCACTACAATCTCTTCTGCTAGAGAGTCTTTTACCTCCC  
CCAATCTGGTTAACTTCTACTGTTTATTTAAGTCTTAACTTAAGTAGATGTCATTTTTGAGGATGCTCTCTCTGTTCC  
CACTTTGGAACCTTGGGCTTCTCTGTTGTCCTGGGTGTCCTGTATTCTCTGTATAGCCCTCATCTCATTGAATGT  
AATCATGTCTTCACTAGTGTTTCCCTTTCTAGCATGATAGATTTTTGTATTGCCAGTGACCCCAACAAATTTCCCAAGGTC  
CTAGCCCTGTGACTGGAACACAGTAGGCATTTAATAAGTTGACAAATGAGTTAGTATATGTAATGAAAAATCTACCT  
GCCTGAGCATTAGGAAATATAAAATTAATCTAACTTTGCCATTTCTGTAATATCTGTGTGTCAGTCAGGAATGCTTT  
TGGCTGCAAGAAACCCCACTGACAGTCTTTTAAACAAATAGGAAGTCTAAAGAGTCAAGATGCTGGCCTTGGTTT  
AATACAATGTTAGAGGCAGCATCTCAGTGCTTCTCTAATGGTCAAAAATGACTACAGTAACCTCTTCCCTCACATCCA  
CTTCCAGTTCAAGAAGCAGAATGAGAGACAGCAATAGCCACCTGTTTCTTCAAGAAAGCAAAGATATCTTAGAAG  
TCCCACTGTCTTCTTCACTTCTCATGGGTAGAATTATCTCAGTGGCCACCCCAAGTGCAAGAGAACTAGGGAAA  
TTAGTTTTTAGCATTTCCCACTCTATGTTGAAAATGAGTAAGAGACAATAATTTG3GGAATAGGTGTGGGATTAGTCA  
GCCAACAGTGTGTTGCTACACCTTGSAGCAAAAACATTTTACCTCTCTTACTCTTTGATTCTTTTCAATTGAGTGAAGAATTA  
GAATAAGTAATCTTTCTTCAAGAATCAATTTCTCTCATCTATAACTCCCATATATTCTTATTTCCAAAATGGAATTAC  
CTTCTACACAGACAGTTACTTCAAGCTTTTCCCTGAATATTTTACATTTCCAGAAAGCACTATATTACAAAGAAGCC  
CTTCTTTTCAAGAACCTTATTTGCCATAATGTTCTCCCTAAACAAGGGCTGAACAGTACGTGCCAGATTCCCTGCCTC  
TGACCTCACACACCCCTCTCTGTGTGGCGGTCTCTCAAATGTTTAGGACAATTATCATGACTTCTCTAAATCTCCCT  
TTTTCCAGGCTCAAATTTCCCTATGCTTTCAGTAGTTTTTTCAGATAAGCCCTTCTGTCCCTTCAACCCCTGGTCAGCCA  
ACACCAGACATACTCTCTTCAATTTACTTATGATTCAATGAACAGATAATCACTGAGTTCTTGCATGTGTGTCAGCACTGC  
TCTAGGAGCTGGTGATATGGTGAGAAACAAGGAAGGGAAGGCCCTCTCTCATGAGGCTTACAGAGGAGCAAAGGAAT  
CAGATGATAAGATAAGCCTTACACACACACACACAGAGGATCATTTCAGAGAGTGATTCGTGCCAAGATGAAAT  
GACAAAGGGAGATAGGAGAGTGACAAGGGATGA  
AACTAGAAGACAAGCCTTCAGATGATCAGGGAGGTTTCTCTAAGACCTGAATGGGGATAATTAAGTAGCATGGAAGAGG  
AAGAGGTTTTGAAGCAGGAGGACTTTGTAAGTGAAGGCCCTGGGTAGAATGAGCTAGACCTGAGCCAGGAAAAAAG  
ATGCTCAGAGGGGGAAAGTGTGGAAGATGGCCTGATAATGCACATGGGGAGCCCCCACCACAAGCTCATGTAGGACA  
GGACAAGAACTCAGATTGTATTCTAAATGACAGTATTCAATACCCATCTTAAAAATGTGTCTGGACAAAACCTTAACACT  
TAGTACACATATAGCCTGACTGGAGCAGTCCAGTTTATAACCTCTCCTTGTAGTGGGCACTGTATTTCTATGGATGCA  
AGCTACAGTTATATGACTTTTGTGGAAGCCATGCTATCCCAAGTTCCTGTTGATTTCTATATGCTCTTTGATGCA  
CACTGCTCACATGCAATGAAATATTACTTGCAAAAGAGAGAGTAGGTGGATGTGATGCCAGGAGCTATTAGAATGATT  
CACATTACACTTCCACCATATGAAAAATAATGTACAGTCTAAAGCAACACTGCATCATATCATCGAGCAGCTTGGGAAA  
GCCTAAATTACATATTTGAAGTTCAGTCAGTCATTGAAATTAGATAATCTGGATGGTCTGAAAGTGTCTTTCTTGAGA  
GCTTTCCTCCAAAAGCAAAATGGAATGTAAGGAAAAAATGAAGTACAACAAAAATGACAGCAAAAAACCTGAAAAAC  
AAAAACAAAAACAAAAACAAAAACAAAAACCCCAAAACTGAGTAATATCAACCAGGCAGGAGTTGAAGGAGAGAAGCCC  
AACTGTTGGTAGATAACTTGGGATGAGCCAATTAATATTGGTCTTCTCTCTCTCAGAGGCCCTAATTGCATTCCCTCC  
AGCAGCCACAGGCTGGGGTTTTCCCAAGCCTGTGGCATTCAGACATCAGAGCTGAGAAGCTCCAGTGACCACAGGCT  
GCATTTTAATGCTAAGCTGGGAGCATTGATACTCTCAAGACAGCCTTGCAAGCTCCATCTTCCACTGACTCAACGTTT  
AGTGAACGTTCACTGTGTTTCTATCTGCTGTTCACTCATGCAGGCAGCAGGGATCCTGAGGGCTCTCTCCCAATATG  
GTACCAAGTTTTGATTATCTCTTTTCTCTTCCCTATCAGCAGGTATTCTAGAAGACAGTTTTATGATGACATTACAG  
CTAGCATTAAACAGATAAAAAATAAACAGGATGTCAATAAGAACTAATGATGTGTCTGTGTGTAATGTATAATAA

Fig. 6. 167

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TAATAAAAAAGAATAGACATCTGTTTGTCAAGGTACCATTAAAGGCCCTTGGGGCTTTAAATGAACTGCTTTATAAATGC  
ACCAACATATGTGACTGTTTGCCTACGTCTTTCATCCATGAAAAATTGCCCTGTAGACAGTTGCCCTTGAGGTGAAAAGC  
ATTCTATAGGCACTAAATATTATGCTAGAACACCTCTAAGTGCTAATCTAACTACCTTCATGACGGAAGTTTCAGGAGA  
ACAATTTAAGGGTCATGGAAAAAAGTGTTAAACGAGTTGGTAATCTGACATTTCCTAAAACTAGATTCAAAACCGAA  
GGGAAAGTAGAGAGAGGAATCAAACTAGCCTAGTAGGATGGAAGTAGGCCCTCCCTCCTTGGAGGTGTGAAAATGCCTG  
GAATAATTTAGGCAAGAATGCCAAGTGTGCTGATGACCTTGGTTTAGGGGCAGTTATAGCATGGTGGAAACACCCCTG  
GACTGGAGATCCGGCATCCCTTATGGGGATATGAAAGAAATTTGGCAGGTCTCTTAACCTCTTTGACATTCTTTCTTC  
TTTTGTAGGTAGAAGCTGGTGTCTGTTTCACTGTAATTTGGAACAGTGTCTTGCATGACTGTAGGGTTCTGCTTAGTGCC  
ACGTGGAGGTGGGGATGCCTTGGGTGAAGATGAAGGAGGTGTAGTAAGCAGGTGGGGCTCTGCACTCTTTTTACTCTCC  
TTCTTCCAGTATCATCAGAACAACTCCACTTTTTTGTCTTTATACACTGAGTTATTTATAAAATCCTAGTTTTTTTAAAG  
TGTCAAAACATGCTTGATTATGAAATGATAGCATTATTCTAGCATTCTAACTAAAGTGTGTAATTTATAAACAACATATC  
TTTAAATGGTCAACAAATTTGTCATCATTACTGAGCAGTGTGTTAGTAACACCAAGTAATACAATTAATGAAATCCTTGA  
AAGTAGAACCTATCAGTGAGCCATGCATACAAGCTGTGGATAATGTATAGAAGAATGAGTTTCAATTTGGTAAT  
TATTTGTACTTTTTCAAAATATTGGTGAACCTTTCATCTTTAAGGAGCAATGGTGTCTAGTTATTTCTGGCCACAAGTCA  
TGGAAACTCTCGAATCTGTGTAGTATGTCCTTGGGCACAAAACAGTATTTTTTGGAACTGCTCAAAAATTATGTAGTTT  
TGTAAGACATTTAGGGAAAAATCTCATAATTTATGTTAAACACTCAGTTGTCTTGGTGTGATTGAAAGCAATAATACG  
TGCTTAACATCCTGCTAGTTGCTGAGGGAGATTCAATTCATCTTTAGAAAATGTTTCTGGGCATCAGTCATATAATAA  
ACACTTTCCAGCACCTTGGCTTCACAAAGGAACAAAACAGACAATGCACATTCTGCCCTAGTGGAGCATATATTCTAG  
ATGACAGACTGAACACCTAGACATATATGACAAGCTCTTTCTTGCAAGGAGAGTCCAGTTAGGAAAATGTCAACACCTA  
AAACAGTTAAAGGCTAAGATAGCTTCTGTGGACACTAAGTGCTACATAGTAGTTCCAGAGGAGGCAGAGAGTTAGACCT  
GGCTAGACACTGGACAGGGGGTAGAATTAGACAGATAGTTCTGGCTTGGTGCCTGTACATAGTAGTTGCTCAATAAA  
TATGTGTTGAATAAATGAAAAACCAAGGACTGACTGAATAGACAGTTTACACATTTACATAAAGTGTGTAATTTAGGG  
AAGTGGGGTTAGAATGAGCCTGGGTGAAGGAAGCCTTGAATGAGAGATGGAGAAGTGTAAACGATAAAGGTTTTTGAAGT  
TGGGGAAGGTGAGGGGAAGTGAAGTGAACATGGAGAAGCAAAAGTGTGAATATTTTCCAAGATGCCTCGACGTTAT  
GATAGATGAACCTCTGAGACAGAATGTAGGGGAAGATAGAGGAAGAGCCAAAGAGCCTCTGAGGGTGCAGAAGTA  
AAGAAAAACAGGATGTATGATGAGAAATTTTATTATGAGCTATCCAGTGTGGATGTGACTTCTCTTCCCCATATCGAC  
ACAAAAACACTTAGCAAAACATTTCTCTTCTCTCTCATGCTCTCCTGTTCTTTCTCCCTCTATCTCTATCTCCTTTT  
GCTCTATCTCTAGATATCTATTAGACAGATGATAGATAGACAGATACATAGATAGTAGTAGATAGTAGTAGTAGG  
ATAGATGATAGATAGATAGATAGATAGATAGATAGATAGATACATCTTGGAAAGTGGTAAGACAGAAAAAGTAGTG  
AGTATAGCCTCAAAATGGCTGCAGGGCAAGGTAAGAAGCTGAGCTCAGCCTTCAATCCAATCCCTGTTTACACTCTGCGC  
TATTTATTTGTTTATAATATACTCTGACTCCCCATCGACATATTTACATCTTGGTAGAAGAGATTATTTTGTATCT  
CTTTGTATTTATTTCTTAGCACCAAGATAATTTTAACTACTATTTTATTATGTAAATTTCTATTGTTTTTACTCCAAAG  
AAATACATATTTGTTGAAGAAAAATTAGAGATACAGATAAGTTAGGAAAATAATAATATCAGAAAAACAGGGCCATCATT  
TAAACATGGTTACATAAAATAATAAAGTACTGTGCTAAGTATTGTAATGATGCTGATGCTTTTGTAAATAATGATACTGA  
TGGTGAAGATGGTGATGGTGTATGATGACAATGATGAACACATACCTCCCACTGATTATGTGTAAAGGCACTGTTCTA  
AACCTTTGTCTAAATTAATGCAATGAAGTCTTCAACAAGCCTCAATAGATGTTATTCTTCTCCCTCTTCTTATTTTAT  
TTTTAGCATATTTTATAGATGAGGTATCTGAAACAGAGATAAGCAACCTGGCCTGAGTCATACACACAAAGTATGGA  
GGTAGGAAATGACCCAGACGGTCAGGCTCCAGTTTTTTGGGCACTACCAAATTATATTAATAATACAACCTCTGTAGCAG  
CCTGCTTTGAGTTATGGAATAGTTTCTAGAATAAGTCACACACATAGATTTGAGCCAGGACCATCTACTCTGAGCA  
GAAGCTCCTACCTAACCTTGACTATAAACTGACTCTACCAGATAATCACACTTGGCCTTTCTGTAAGTGATAAGCAACT  
TGCCTCTGTGGGCACCTACCTGAGAAAGGTAGTCACCCTGCTCCATGCTCTGTTTCAAGTACATTTATTATTATTTAT  
GAATTACTTATTAACATAAATTTATTATTATTACGTATTATCCAACCTATTAAAGTGTATATGTATGCAGGTGTGT  
ATGATTATGAAATACAAGATGAAGAAGTGTAAAGAAATAGCTTTTGAAGAAATAGTAATGACTGGGCCATAGCCCGAT  
GATAAGGCATGTTTACATATAACATTTCTTTTCTGATGGTAAACAGCCAGCAAGGTAAGTGTATCAGGGCTGTCTATG  
TATCTAGTACTGTTTGTGTACTGAATAAAGGCATTGCTGAGGGATGATAGGGCTCAAATCCAGGCTGCACTCCTCT  
TGATGATCTATGAACCAAGAAGATGAGTCTACCTGGAGGGAAAGGCTTTTCCAATATGCACAAAGTTCCACAGAAGCT  
AGAGTTGTCTTGGGAATGATTATCTCCATTTTGTAAATAAGGAAATTAAGATCAGAAAGATTGAGTAATTTCTCAAGA  
ATATGTATCCAGCAAAATAACAAATCAAGGACTCAAACTAGGCCAATATGGCTCTCACTTCTCTTCTCCAAATCACTG  
CTATGCTTTTCACTAAATTTGATGCTCTGTTTCACTGGTACAAAGCTTGTGACCATTTAAATTTCAAGGACTATCT  
GATTGTGTATTATATTTTATAGATCCTTTCTGAAAGCAGGTTTTTAAAGGGAGGAGAAAGTAGCAACTGGAAGAGAGT  
TTTGAGATGGTAGATGGTAAATGTGCAAGCAAAATCCCAAAAAATCTGGGGACACAGACTTCACTGCCTTCAGAATAA  
TTGAAAGGAGAACCTTCAAGTATGAAGCTTCAGCTGAAATTTCAACGTGGTTTATTTACCTAATATGCTGTTCAATTAA  
TTACAAGCTATTAGTGACTATTAGCCTATGAAATTTGATTTACAGTTTCAAGAAATGATTTGATTTTCAAGCCTTACT  
GGGGAACAATGCTCAGTCAACACTTTCTTTCGCTTAAAGAGTACGATCAAGAGCATGAAGCGTAGTAAATGTTTAGCCT  
TTGAATTTGGAGTTTACAAAGGATAATTATCCACGGGTGGTGAATTCATGTTCTCTCTACTCCACACAGCCTCTGGT  
TTGCATTTTACAGTTTTCACAAATCAGATGTAAATTTAAATATAATCATTCCATTTTAAATGGTTCCCTGTACAATTAT  
CTCATTTTAAATCTTTTGCTAATGTGGTTATTCTTAAGCAACTATGATCATTATTTTATGTATGTAAGATGTCAATAT  
TGTCAGCTGATGATATTATCTAATAGTATGTAGCAAGCATGTTCCCTTCTACAGTGCCTCACTCTTTCGATGGGTA  
AGATGGGAGGTGGGAGTGGGGGAGCATGGCATTAGCTGTGGATAATAAGCAAGTAAGTACAATAGGTGTTCAATAA  
AGTCATCATTTTTTGGTACTTACGATGTAGTTTTCTGTCTCTTTGGTTCCTTTTGCAGTGGGTGATTTGCTTAGACAG

Fig. 6. 168

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AGAGAAGTGGCAGAGGGAGACTGCATTGTATTGGTTATTTTCAGAGAAATGCAACTTGGTATTATGAGCCTTTAATTC  
TGTAGGGCAGTCTCCAGATCATTGATGCTGAACCTTTGTCATAAAAACTATTGATTTTTTCTTCCAATTATAAACA  
TTTGCTGGTTTCTTGTCAGTTAATAACTGACATAACATTATTTAGACCTTTCACTTAGGGCTCTGTTGTGTGTTTCTC  
TTGATCAAAATTATTGCCTTAGCATATCACTGAATACACAAGAGAAAAATCAAGTTATCTATGTTTATCATATGCATT  
TTTGAATACCTATATGTGATGCTTGAGCATAGTGGTTTTWATAATCCTGTAGCGATTTTTAGGAGACCAGATCTGAC  
CTCCTCTCTCACACCCCTTTTCACTGCCTGCAACACACCACACATACCACACATACCACCCCTGACCGACCAATGG  
AATCTGAGCCAACATAAATCTCAAACCTGTTGATATTGGATAATGCCCTGGAGGAGAAACAGGCTACCGTTAGTAAT  
TCCAGAAAGAATTTCTTCTTAACTCAGTAAACCAATGGCTTCTCAGAAAGTTCTTTCTGAGTTTTCTTATTGAAA  
TTTGAAAATTATTTGAAATTGACTTAACCTGACATCACCTGTTCCCTCTGGATCTCCAGTGATTACTGTTGACTCTT  
TCAAATCCACTCATCTCAGGGCTGGGGGACTGAGTCACAGTCTGCTTTTTCTCCTCATTGTCTTTCCAAATTTTTCTTC  
CCTCTCCTTGCTGGGGGCTGGTGCTAAGTTGACCCCATTTTTCTCCTCTGCTGTCACTCACTGCCTTTCCAGAATC  
TTCTGCATCAGGTCACTCCTTTCCAACCTAATTCATATGTCAACCCATTATCACCGGAGCCACGTGTTTCCCTT  
CACACAAATTGTCTTCTCTGCACCACAGATGCCAGTACACTCTGGCCCTTGCCATCTGTCTTAAGATGCAACACCGGT  
CTGCTTCCAAATCCCTAGTTTCCAGACAGCCTGCCTTCCAGTTGCCACATCCTGTTTGTCTTCCAGTTTAACTATGTAC  
TGCCACTGCTGCTTCTACTTGTGACAGCTTCACTGACCTCTCCATTCTCCCATCCCTCATCTTACCTTACGTTCTCT  
TCCGCCCCCATCTCTGCTTCAAYGAATGAACCCGTTTTTCATGTTTTTCCATGTTGGGATTTGATGCTTCTCTT  
GAAATTAAGCTTTTTCTAGTATAAACACTCAGCCTGTCTCTCTCACTTTAAAGTGAAGACATAGACACACAGAGAAG  
TGAGATGATCTTTGTCCAATATTGATTAGTGGTGAAGTCCCTTGATAGCCAATCCATATTTCTTTCACAGTAATAGAA  
AGTACCAAACCTTTAAATAGAGATTAGAAGTTGCCTTACATAAATGTTTAGGCTTTTGAKATCTCAGGGCTATTTGT  
AATACTCTAATTTTAGGAATCATTGTTACAATGTTTCAAATCTACTGACTTACACATATATATCTACATATATTGTCT  
AAACATATTCTGTAGAAGCAATGGGGATTGATGATTATGAAAAAGTGCCATTGCTGGTTTAGGCAGTGTGTAAATGT  
TGCTACTGACATCTAATGTGATTTAATTCTTGCACTCTGGTGTGCTAATAAAGCTTTCAAAAAGAGCATTTTGATC  
ACGACTCATTTTCCAATTTCTCTCTCCATGATCCCAACATCTTCTCCTAAGAAATCCACTCTGTACCTGAGTTTCCACAT  
GGAACCTTAGGACAATGATGTTAGTGAATTAGAGGTCTGGCAGAATCAAACGAAAGTAATCCTCACCAGTCACTAAACC  
ACACTACTTTGAGTCTATGCAAGTTCAGGAATTTCTATTTGAGCAAAAGCCACAAATGGCCAGAGCGGACCTCAGGCTT  
TGTGCTTGAACCTGCTAATGCCATTGATTTTTGATCCCGCACTTTTCTTGCCAGACCAATGGTCTTTTCTAGCAGT  
AAAATTTCAGAAATAGGTAGGCTACCATCACTCTTTGGGTTACCCCACTGTTTACTTAAGTTGAAATTCAAATAGATATG  
TATTTCTATATGAATGGCTGCCATTCTGCTATGCCATGTTTCTGTTTCTCACTCATCTCTGGCTTGTCTCGTAGAGCC  
CTTCTGCTGCTGACTTATGTTGCTGAGTCAAAGGCTTTTCATAGTCAAAGCTCTTCTTTTATCTGATATGTTTTCGAC  
TTTTCTGCTACTGCTCAACTCTACTGGGATCATATTTCTCTAGAGCTAAGTCACTAGGCAACCTGTGCTTCTCTCTG  
ACTGCATTTTGCAAGTGCTTCTTAGGATTTCACTTTCATTTAAAGGCAGTAGATAGCTCAGAGAATGTGGAACAGTAAC  
TAGAACAGATCCAAGAGCTGTAGAATCAAAGAAGAGTTAACTACTGTCTCTGAACTTAGAATGTAACCAAAGTCAAGC  
TAGCAACCTCATAAGCCTGTTTCCCATATTTAAAGTGGATTGTAATGTTTATGAGTCTACCCTACATYAGATTG  
GTGCACTGATTACAGGAGACAGCGCATGTAAACTCCTGGCATGGAGCCTGATGCATTTGAAACATTTACTACAAACTA  
CCATTGTTGTTATCATTATTAATAAACCATTCTTTCAAAGAATCTTGTCTTGGCCACCAAGCTTGGAAGTCAGTG  
ATATTGTTTCATCTTATTTGCCCGTTTTTTTTTTTTTTTTTTTTTTTTGAATAATTTAGACCTCTGTGGCAGCAAG  
TCTGGCCTCATCTTGACCATTCTATCTGCATGATCACTAATCTTCAATTTAATGGCCCTGTGACCTTCTCCATAAG  
CCAAAAGTGCTGTTTTTCTATTTCTAGTGTCTTCTGTGAGGCAACAATAATTTCTAAATAACATGCCCTCTCTAAACC  
AATCTCTTAAAAAATAGATTGTTTTGTTTCTGACCTTTCTCATTCCATTTTCAAGAACTATTTTTTCTCCTTCTTTAA  
GCAGGTTACAAACCTTATATTTTAATATGCTGAGGCTTGTAGTCAAACCAATTACTGTCCCAAAAGAAAAGCCCTTTT  
AGCACATTTACAGCTTCTTGCTATCTGTGCCCTAACTAAATTTGTCTACAGGGATAGTTTCTTAACCATTAATAATGATA  
GGTGAACACAATTTATTTTGAAGGATTACTAAGCTATTTTTAAATTTCTATAGTTAGAAAAGAAAAGTGTAACT  
GAACTTTGAACCAATTAATAACAATTCTCATGGCTCTCCGTTTGGCAATACCTTCTTATTCATAAAATAAGAATGT  
GCACTTTACCTTTTTTGACCCATATATTTGATGTTTTTCAATTTCTTACACGTTCTTTATCTCTCTGTGCTGGAATA  
TTCTGATTTGTTAATTAATACCAAGCAGCAGTTGGCTATTAATGAAATGTACAGAAAGGTATTTGGTAAAGGCTACA  
TGAAGATGATGATGACAATAACAAAGATATCTGATTGAAAGTAATCTTTACCTGTAAATCTTCCCTTAATGTCTCCGAC  
TACAATGGCAGACGTTGCTTTCTGGATGATGACTGAAAGATTAGTTTGAATGAATAAATTTATTTTCCATGTTTGA  
TTCATAGATTTTTTAGAAATTACTAATTTGAAAATTAACCTTCTTTTTTCAAGCTTTTGAAGTTTATGTTTCTATAG  
TTTAGGCTTAAAAATAATGTAGACATTAGAAAAAACTCAAGCGGTATTAATCCTTATATCCCTAATGGTAAAGAGCGA  
GGCAGCTAACAAATGAGGTGCTGGAACACTAGCAAGGGAGCCTGTCTCTCTTCTGTTCTTTGTTGTTTCCAAATTACAGG  
TGAAAAGATGCTATCTGTGAGCTTGTCTAATCAATAACAAAGGCTGTGCTGCTTCTTATGCTATGCTGCTGCTGCT  
GAGCACATCCCATATTGATGTTTCTACTAAGGCTGTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT  
CAAGCATGCAGTAACAGTGTGACTGAGCATTTCAGTTATATGCTTCTTACCTCAGAAATTTAAGAAGAAACAATGC  
TAAAGGAGATTTTTTTTTTAAATTAATAAACAACCTACCTTTCCAGGGTATTTTAAAGAAAGAGGTGAATTTCAATTG  
CACATACATCCGCTATGTGTGACGCCAGGTTTATCCATGGCCTCTCTCGCCCTACTGCTTTTTAAGTAATATGGGAAAT  
GCAATAAACAATAAATAAACCCTACTTAAATAGACTAGTAAAAAATTGAGCAATAAGGGATCATTGTATAATTAGATTAG  
AATAGTATTTTGAAGGGTTTAAATAGCCTTAACATAGGCACTGACAAATGTTTGTAGGCTTACTAATGAAATTT  
TTATGTTTTTTCAATGGAATGTGCATTAGAAATGAGGCCATTAGTTCTTTGTGTTTAAACAAATCTCAAGATTTCTGT  
AATGAGAGTAACTTTTCTTCTGGGATCCCTGACAAACCGGAAGAGAGTGTGCTGCTGAAATGTGGGAAAAACAGCTGTGT  
TATAACAGGAGCTGCCARCCCCCACACAGCTGGCTGCAGAGATAATTAATTGTGAAGAGAGTAAGGAAGTAATTCACA

Fig. 6. 169

[illegible]

Fig. 6.170



[illegible]

Fig. 6.177

GATGATATAAATCCTATGGTCTTTTCAAACACGCTCTGTGTCTCTAGGGAAATTCCTCAAAATTAGAAATCAACACATTT  
TACTGCAGTTCTAATTTGCACACGCTTGCCTGAAAACTTTCTAATTTCTGGTCTTTTTTACCACCTCCTCTCCCACTT  
AATTTCTATAGCTACAGAGGGGAAAGATAGTCTACTGTCCAAATAGTCTTGCTAAAGGACCTCATTTTCAAATTCCTTTTT  
CCCCCTTCAAGTCTTTCATTTGACTCACGGTGTAATCACATTAGTGAGGAAGATTTTGTACAGTCATACCTAGTGCCAAA  
TATCAAGTTTTCTCCTCAAAAAGCAAAATAAAATGATGGGCAGACCACCTGCTTTCCATAAAATTGTACCAAAATCAAGG  
AGGACAACCTCTACGTTATACGTCAGTAATAACATCAGCATTTATAGTAATAAGGTCTGTTTGATGGGCAATGCTGTGGT  
GTGTAAATTTCTGATGACCAACTGTTGTAAGAAATGTCTGGAAGAATGGGAGAAAAAGTGAAGTCTATGCGAAGTA  
GTAGATTTGGAGTCTTTTGAAGAAAACATGCAAGAAGCTGCAGATAACTGCTAGATAAGCAGCTATTGACCATTTAT  
GAACTCAGTTTTACCAGGCGTTGAGAAGGCGAGAATACTCAAATAAAACCTGCATAGATTCCACCCTTAGGAACTTA  
CAGTCTGGCAGATTCAAACAATTTCACTTCACTTTAAGTAATTGTAAAATTGCCTCCATAAAAGCATAGCCTGGATGA  
AAACATTTTTCAATATTTACTCATTTTAATGCACCTCAAATAAACCTTTATACCAAGTAACCTCTTTAAAGATCTACC  
AATATAAGGCACGTATAGATCAAAGTAGACAATGTCAGCCCATATAATCCCCCTTCTCCAGGTCCATTTTGATTGCTTGT  
GTCAACATTTGGAGACACAGTAATACTACTAATGGTCTTTAAATTTCCCCCTTATTTATCTCTTTCTTTTCAATTTTTCT  
TCCTTCACTCGTACTCTATTTCTTGTGTTTTTTTTTATCTACTTTTTTTTTTGTCTCTCCCCAGGGAACTAGA  
GGAAAATTCTTCATCTGATAAGAGTTTTTTGGCACCAGAAAGGATATTTTACCTGTAGTCTGCACCTACATGGGATGAGG  
GAGCCTGAACATGTTTCCATGAGTGTCTTAGTTCAATGGGCAGAAAGATCCATCAGGAGAAAGCCTTTGTCTAGTATGG  
CTTTGAAATTGTTCAAATGACTTTGCAGTTCACAACACGTGAGCTTAATCATTGGTTTGGCTCTTCTGAGGAGCTGAGG  
GAGACAAAGAAGCAAAGTTATTTTCCAGAGGTAGTGAGGCCCAAGATGCTCAGAAAAGATTTAATTGAAAGATGCCAT  
TGCTGAAATTTCTTTTATAATGTTCTGCCTGTGGCTTTCCAATAGTAATAGTAGTAGCAGTTGTTGTAATAATAGAGAT  
AGTAGTTGTATTGATAGCAATAATAATAGCTACTATTTATTGAGCACTGACTGTGTTTCAGGCATGGGTCCATGCACTT  
TACATATATTAACTCATTTTAAACCTCCCAACACCTCAACAGGTAAAGATGATTATTATCCCATTTCACAACTGAGCAA  
ACTGGGACATGAGATTTAAGGAACGTGCCCAAGCTCACACAGTTCAGGCGATCACCAAATATACATTTCTCTCTGCAAG  
AGAACAGTCTATTTTTCAAACATGCTGATAAAACAGCAATCCCATTGCTTCTAAGGACAAACCTGCCATGCCCTGA  
GTGTTGCCATTCTTAACTCCAGGCCAGGGCTTGCCTTTGGATGCATGTGAGCTTCACTGGGCTCTCTGCTCAATGTCC  
CTCCTCAGAGTGTCTCCCTAACCACTCTCTTGATCTCTCTCCACCCTTTATTCCACTTGGGTTTTCTTTCAGCACACT  
TAGGGCTACCTGACAGTGTAGCAAGGCTACAAAGCAAAACACCAGATGGGGTGGCTTAAATAACAATCATTTATTTTC  
TCACAGTTCTGGAGGCTGGAAGCTTGAGATCAGTGTGCCAGTTTGGTTTCAGTGTCTGGTTATGGGTCTCTTCTTGGCCTG  
CAGACACAGACACTTTTCACTATGTCCTCATATGGCTTTCTGTGTGTGGGGGGGGGGGGGTGTGGGTGTGTGCGC  
GCGCGCGCGTGCCTGCATGCTGTGTAGGAGAAAGAGAAAGCTTTTGCCTCTTTCTATAAGTTCAGATTAGGACCTT  
ACCTTTATGACCACATTTAACTTATTTACTGACTAAAAGCCCTATCTTCAGATATAGTAGACATTGAGAGTTTCAACATA  
TGAAACATATGAGCTGATAGGAATATATGAATTGATGGGAACATATCAACACTTCAACATATGAATTGGGGTGAGGGACG  
CAATACAGTCCATAGCGGTGACCGAGCATATATTTAATAGGTCAATATGTGTTTACTATGTGTCTTTCCCACTCCTCC  
CGGTATTAGTAATCTAAATACCAGTAAGGATTTGAGGTTCTTCTTGTGTATTCTTAATACCTAAGACACTGTCCAC  
ACATGGTAGATGTTCAATACATATTTGTTGGATAAATAAAAAATACAGAGCTCCCTCTTCTCCCCCTACATGTTGGAAAA  
TGTGTGTGATCTAAATGAGGAGAGGGAGAACATCTCATCTAATCTTCCAACCTTCTGAGGCCACTCCAGGAGGGGCGA  
GCACATTACGTTTCCGTCAGTGTGGGAATTTAGTGCCTGCTCATCTCCTGAGGCCATCCAGGAGGGGCGA  
AGGAGGTGGAGCAGCACACTAGTGTTCAGAGTGGGGAGAGCAGATGGAGAGGAGTTTATGGGAACGATGATTTACCC  
CTGCTCACTTACCCTGTGAGAGGACACTGCCCTCCACGAATCAATGCTGGCTCCTCCTCAGGAACACAGGCTTCTGCA  
TCTCACTTGCCA TGCTGTGGATCTAGGAACAAATTTGCATTTGGAAATTCATTTTAAAGTGTGCATGCTGAGGTTCTGG  
TGACATGCAGGGTAACTTCTCCACCCACGATATCTTGTACTCAGGCCTTCACTAGGAGGGGAGGAGTGTGTCAG  
CAAAACTGGGTATTTCTTAGGAAGGAAATCCTTCTAAGCTTTATGGAAATCCTAGGGTGTGTGCTTACCTTTCTGAGT  
GTGGAGCAGACTCTCTGTGTACATACGGGTAGTGAGGGGTGTAATATTGGAGAATGGCTTAGGTAACAGCCAAAATATA  
CATTTGATATCTCCAAAAGACGACCAAGACTACAGGGCCATGCTGCTATCATATAGATATAATAGGCAWAGCCTTTC  
ATTGATATGTAATGTTAGTATTTTTTGGTAAGTGCCTTATTTTATCTTCTGGATAATATAAGATCAAAGTACCATTAGG  
GCAGGATCCTTCTCTCATTCAATTTTTTTTCCCAAGAGCATAGCACAAAGTAGGAAGTACTTGTGAGTGAATGAATGAT  
CCTAAATATGAAAGGATGGCATTTTATCGCCATTTCCAGATGAGAAAAAACGAGGGAGCTTATCAGGTTTATATATA  
GTGAGTGACAAACTTCAGAATTAACCAAAATCTAGTGATTCTTATAACTTACAGGTTATTAAGGAGTCCACCTGAATG  
TAAGTCCAACAAGACAGGTGTTTATTTTGTGTTACATACATTTCCAAGTACCTAAGACAATGCCTAACATATATAAAATAC  
TTCATAAATCTTCTATGTGTGAATAGAATTTCAAAGTTTCACTCATCAATATATGCCTCATGTGACACTTCCAACCTTC  
ACTGCCAGGCTTTTCACTGTTTTATTGTAATAGTTTCAGTAAGAAGAATTTCACTCGTCTTTAGATATGATGCTTTCAA  
CCACATTGTTGTCAGTTCTAAATCCCCGAAAGTTATTTTTGTATGCTTGGAAATCTTCAAAATTTCAAAATTTTAAAG  
AAGTCTCCTTAGGCTGAAATGAATTTCTAGTTGTAAAACCAAAATATGAATCTATGTATTTGTGTTCTCAGACCCTTT  
TCCAGCAGGTCCTTGGCTGTATTTGTATGCATTTGTGAAATGCTTTGTTGAAATTCAGTTTCAGCCAGGTCGTGTAGCA  
TTCTCCTGGCCCCCTGGTCTGATAGTTGTACCAAGAACACTAGCTAACAATTCATGGCACTAGTCTCAGCTGGATTGT  
TCTAAGCTCTTTTATATGATTAATCAATCCCTACAACACCCCACTTTCACTACTATGCCCACTTGAGAACTRAAAACA  
CTGAGGAAGAGCGAAGTTAAGTAACCTTGACAGGCTCTCAGAGCTAGGAAGTAAGACAGCCCACTCGGAACCCAGCAGAC  
TAGCTCTGGAGCCTACCCACCTACCTCCACACCGTACCTGTGGTCCATCTTCAACCAAGGCCCTGCTGCCCTGAGCA  
TAACTTCACCCCTTGTGCTTCTAAAACATCTGCTGATTAAAGTGAGTTCTGAAATGTTTTTCAAGGACCAATACTAAAT  
CAACTATGAAATAGTTTTCAGAGATTGACCTTTCTCCTTTTTGGAATGGATAAGATTTTCCCAACCGAGGTCTCCCATCA

Fig. 6.172



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GCTCTCCTGTTCCCTGGACTGTGGCACATAGGAGGGCCAGGGACTTGGCCTATTATTTTCATTTCTTTTGTATCCTT  
CATTTCTAGATCTCTCTCTACCACAATTATCTCTCATGTTGACAGTTTCCCCACAGATGGGATGTCTATTTCTTGAT  
AATACAGCATTATTATGCTAAATCTCTCATTTGTGTTATTAGCCAGACTCTGTGCAAAAACGTGTGTATATCTGAGAC  
TCTGTGCTGTTCTTAGCCACCTTCTTGGTCCCTTCTCATGTAAATTACTAGGGCACTTCTTCAATATTATTATTCAT  
GCCCCCTTACCACCACCACAAAATCTTCCATCATAACCCATTTTTTTTTTCTCTCTCTTACCACATTTTCAGCTTTGAA  
CTCTTATAATCAGATCAGGAATTACATTTCTGAACAAATGCAGGCTTTGCAGCATTGTGAAGTGCAGCTGGTCCCCAGC  
AGAGAGCCCTAAGCCCTGCTGAAGCCAAACCCCTTTTGTGGCGAGAGGTCTGGATTTTATTTGTTGTTTTTATCTT  
TGGTGAATGTCAACTGGAAGCAGAGATGCGAACACCAGTTATGTCTCTCCCTGCAAGGTTTCATGACCAATACTTTATA  
GTTTCTGGATATGCTTCTAGGTTTCTTCTGTTGGTGTCTATTTGCCTGCATGTGACTCACTGGCAGGTGGTGTATTCAT  
CATATTCTAGACATGTGTCTTAGGAAGCTGGCCCCCTATCTTGGCTGGCTGGACACATATCGAAGTTCTTATGATCTACC  
ATTGTCACTTTTCATATCCATTGTTAAATACTATAGATAGCATGCAGGGGTGAGCCAAATTGTTCTGTAAAAGGCTCAAG  
CATAAATATTTTAAAGTTTGTGGGACAGACAGTCTCTGTGCAACTACTTGAATGATGCAGCATGCAAGCAGCCACAGA  
CAATAAGTAAACAAATGGGAATGGTGTGTCCCAATAAAGCTTTATTTATAAAAACTGTCTTTTTTATAAATAAAGGA  
GCCCCATCGTTTGGCGCCCCCTAGTGCAGGAAGGAACAGGGGAAAATAAGGAAGAGACCCAGAGGAAAAAAGTGTCA  
CCAACCATCTCTAATCATATTTTACTTATTTTCTAAGCGCAATCGCTAAATTATCTCGTCTTCTTAAGCGCT  
ATGAATCTCTTACATTAACCTAGGGACAGAATATAGAGTTTATGTTATCTTCTGTGAGTTCTTTTTCCATTCTGTCTAT  
GTTTCAGACTTTTCAGAGGTAATTTTTAAGTATTTTCAGCTGTGCCTTAGATACATTAAGGGACCTATAGTGCCTCCCTGA  
GGCCAAGATGATGGTTGCAATCATAAATAGGTTATTTCTGAGTTGAGACTGGTAAGAACAGATTATCTGCCCCAGACAG  
TGATGTGCCAAGCATTGGCAACTTTGAAAAATTTGCAATTTGATTTTATAGGAGAGTTTCTTAACAGGCCTGAGTTTT  
TTTCCCATTGCTTTTGTGAATACAGTATTTTCCCTGCTAGACTCTTAGTCAAATGTTCTTGCATTATAAGAAAAAG  
GAAAACTGAAAACTGAAAAATAATTTATTTGGCTTAGGAATTTTTCATGTTTGTCTGCTAATGGCAATAAATCTA  
CCTTATGTAATCTACGGAATTTTAAATCCCGGGGAAAGGTAACCAATGACAGGCATATGTGTGTGTGTGTGTGTGTG  
TGTGTGTGTGTACAGTGTATGCTTGTGAAAAATTGAACAGCAAAAAGAAATAGGTGGAGAGGAAAAATTAAAGCTGG  
TACTGGTGGGTAATCATTATATATAGTATATATACACATATGCCTTCTCCAGTTTATGGAGGCAGTCACTGCCTCAA  
GACGTGTAATAAAGAGACAGCAACAATTATGGTGGCATTATGATAGGAGAGGCTTGGAGCCATGTAAACTTGACTTGG  
TTAGTAATCTTTGCCAAAACCTCCCTGATTTGTGTGTAAGGGAGTTGTGAACCATTAGGTTTGGCTTAACAGAACAGCAAGT  
AAGCATCCAAACAGATTGTCTTGGACCATAAGCAATGCCAGAAAATAGCCCCCTGCATAGGAKATTAAGTACTTAG  
AAACAAATGAGAAAAATATTACAGCAAGTCTTCCAGGTATAGAGGATAAACAACCCCTATTTGGTATCAGAAATTTAGG  
AATATTTATATGTCTCCCACTTTTAAATGAAATACAGGACGCTGACTTGGCAAAATTTGGGGAACGGTTCCCTTCTTTG  
CAGCCAGGTTCCGGTCTTGGCCTCTGGCATCCCTTCAATTGTGTATATTACTGGCAGAGACAGCTGTTTGGAGCTGTAA  
TAAGATTGCAAAATAATATCAGCTTGTGCTTCAGGTTGAAGATAAGAGATAACATTGCATTGGCTGTAGGAATGGCTTT  
CTTATAAAGCTGGATTAGTTTTATCTCACTTGTCTCACTTGTACTTTTTTATTTATTTTACTTTTTTTTTTTTGTAGATG  
GAGTCTCACTTTGTCACTGGGCTGGAGTACAGTGACACGATCTTGGCTCACTGCAACGTCCCGCTCCAGGTTCAAGC  
CATTTCTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCATGCGCCACCACGCTGGCTAATTTCTGTATTTTATG  
TAGAGACAGGGTTTACCATTGTTGGCCAGGCTGCTCAACTCTGACCTCAGGTGATCCGTCTGCCTCGGCCTCCCA  
AAGTGTCTGGGATTTTACAGATTACAGGTGCCATGACGCTTGGCCCCCTTGATACATTTGAGGGTCTCATAAGGTCTTGAA  
ATTGAGCCTGTGAATTTATAAACAGGGCTACAACCATCTGCAGATGCAACTTTTTTGGCATGCCAGAATCAGTGGCACC  
TGAAGAGCATCTCCTTGAAAGCGGTAGTAGATAAAAGGAGATGCCTTTTCAGGTTTTCAGACGTGGACCTCAGATTACCT  
CCAAGACTAGAGTTATCAGATGCACAGGATCATCCAAGAACAGACATGCAGAGGGAGGAAAGGCCATTGTAAGGCTCA  
GGAGAACATAGTAGAGCTTAAAAATGAGAACAAAATGGTACTATCAGAAAAGATGGCAGTGGTTGGGACATAAGAGAGG  
GTAGGTTTACAGGTTTGTGGGACCAGGACTCAGTCACTTTCTCGCGCTAGGCTCAACCTCAGGATGGGGAAGTAAAT  
GTACTTCTGGGCTTAAATTTCTTCAAGTCACTGATGATAGGGAATTTATTGCTAAGTAGGGGAAGTGT  
TTTCAAAAATAACATACAGGAATTTCCCATATCATAAAGGAGGTTGTATTATCACCACGTTTTTACATATGAGAAAA  
TAGAGTCTTAGAAAAGTTATGTACCTTGGCTAGGAGCATGTGCCTAGATAGTGGCAGCTCCAAGATTCAAACCTAAAAAC  
TCCAGAGTCTGAAACTCACACAGTTTCTTCTGTCTGTAGGCTTCATGCAGCTGGACAGGAGGTTAGCCTGAGACAAG  
AGGAGGATCATTCTGAAGGCAGAGAGGCTGGGGACATGACTGCTTTCTGGAAACCTGAGCTCATGGAGAGAGGCTGAG  
AGTCAGGAAAGTAGGACATGAAATCATTTAATGAGAGTGAAGACCAGCCAGGTGAGGGAGTTTGAAGAGAGTTTGA  
AATATCCATTGTAGCTAATATGGGAGAGCATTCTTTGAGAGTGATTAATGGCGACTGAGGACACAGCTAAAGTGAGA  
AAGAATAAATCTGTGGCAGACTTGCATATTTTGGTATGTGCATCTCTTCCGAAATCAATTGAACAGAGGTGGGAAAA  
GTAGCTTGGTGGATAATGAGGTAGAGTGAAGGTTGAAAAGACAGAGCTTAGGAGTCTTTCTGATTGGTCTAAATTTCC  
CCAGGGAAAAATCATGTTTCTTTTTATGAATATAGTCCAGGTCTTAGGTCTGTCCACGGCACAAAGTTTTTCAGGACATT  
CTGGACAAATTCACACATTTCCCTGGATGTCAATTCCTTTGCCTCTGTGCTATCACTTTCTCTCTCTGCTTT  
CTCCTTGAGTTACCTGTCCAGCTCTTCACTCCACATTTCTGCAGCCTCCGTTTAGCTCTTTTATACCTTTGTCCAGATT  
CTTCTTAACCTTATTACTGCCTCTCTCATGTCAACTTCCATCCCATCTGCATTTGGGAAAAGAGCCACATGATAAGT  
GAGTCCATCTGCTAAATGTATGCATCTTAGAGCATTGTTCAAGATCAATAAAGATACAAATTTTATTTTTCAGC  
TGTTGCCCAATCCACAAGAGTACACAAATGAAAATGCAGTGAATTTTAAAAAGTACAAATAGCCATTAAGTTTGTAT  
TGTTTTATTCTTTTAAATAAGCCGGAAAAATGGGAATACGTAGGAACGAGGGAGCTAGCAAAATAGGCGGGGCTTCTGCG  
TTTCAGGTGGTCTGAGACTGCAGTGACCCTGAGGCTGGTGGACCTGGAAGGAGCCAGGGAGAGATGGTGGATCCCAGGG  
GTGGGAGCAAATGCATGGTCCAAGGTTCTGAATGGCAGAGCTAGACCAAAGGACTAACCTGTAACTTGACCAAGGAG  
ATGGCCCAGAGGTTTTCTATTTCTACTGCTCCATCTTTTCATTATAAGTTCCAGTAGAAACGAGTCATCATTTAAAAAT

Fig. 6.173

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ATCGGTGCAGCACTTAAACACATAAGGAAAAATCAATAACATTCATTTACTTACAGTACCCAGAGAAGAAATAAATTCAA  
ATACGTAAAAATGGGCATGAACCATYCTGTTCCATATCCCACTTTTAGGACTGTCAGCAACTGTATACATTGCTGAACGT  
CATTGCTCTTGTACATAATGAATAATTTTCTGTAACCTGTGAAGGCCGACTGATTTTTACGGAAAGACAGCTTTGTGT  
TAGGCGGCCCGCCTTCCCCACGGAATCGGGTTTTCCACGCCACGTTTGTATGTTTTCTGAGAAGTGTGCGCCATCTGCT  
GGCCGCTGAGAGGATTGACGAGCAGCCATAAGGAGCACCGTGTCTTCTGAGCATGACTTAACCAGGCAATGGAATTACA  
ATTATCTTTGGGTTTTCTAAAACATAATAGACATTTTCAGGATTCACGTGACTTATGAGAAGTCGCTTAATTGCCTTTCAA  
GCAGTATACATTTTTTATTCAATATGTGTATTATTCTTTGTAATAATAAACRATGCAATAAAGCAATCGAGGGGTTCCC  
ACATGCTCTCTAGGCAGAGATGGACCCCGGGCCCTAGATGAAAGGTTAATAGTTTGGAGTGAGCCTAACTCTGGTYCT  
CTGACTCTGAATCTAAGTCAGGAGTAGAATAGAGCTGTACAAAGAAGACTGCTTGATGGAATTGAATTTTGTCCCTTCT  
TCAATGGGGGAAAAATAAAGTACAGTTTTTCATCAATAGATTAATGACTAAACTTGGACCTTGATGCCAAATCCAATTGA  
GCTCCGCTGCACAGTCTGGAGATGTACATAAGAGACACATGCTCAGCCTCTTAGCACATCGTTATAATCCAGGCAGGC  
AATACTATATCCTAAAATTACTCCTCTTTGCTGAAATTGAGAAAAATAGGAATTACCCAGGGGTAAATTTGGTACATAAA  
TGTAACCAATGGGTATGATTTATTCTAGTCTGCTCTCTTTCTTGATTTTCTTCTTTATTGGGAAATTTGTATTTTGT  
AGTTCTCTCGACACTTTAAAAATTAACTAGAGGGTAAGATTTAAGTTTCTCACAATAACAAATGATTTTGATTTTTA  
TTGCCCAAAGCCCTTTATATCTCACTTTGATGGGTCTAGTCCCTTTGGCTTAATTTAGATGTGATTTTCTCTTAATAA  
TTTTGAAATGGTGGTGTCTATACCAACTAGCTAGAATAGGAATCACATTGACAGTATTTAATGGATAGAAGCATCTC  
AAAGATCTTTGCTTAATGAGGGCAAAATCATTAGCAATGTCCAACCTCCTATGTTAGAGGCGCCAACTAAGGCACGGTAC  
TTAAATTTAAAGCACAACTCTTCGACTTCCATAAAGTACATATATTACATTATATTTTAAATTACGGGGTAGTGACTC  
GATATGTCACTGGAATGTTTTGAATAGTGCCCCCGCCCCCTGCCAAAAAAGAAATGCAAGAACACTGTCTTAACCA  
AGAAGGCTGGGAGTTTTTAATACTCAGCCTTTGAGCTTCAATTTAAATTTCTGGAAGACAGTAGTGTGGTGCTAGC  
TGCTCTTGGCTGCAAGTTGTCTTTACAGAAGAACTTTGGGGTACATTTTGGTGTGAGGCCACTCTTGCAAGTATTTG  
CAGGCATTAAGAGAATGCACACAGTTCAATAAGCTGGGGTTATATTCATAATCAGTCTTTGTTTAACTGTGTAATAA  
CTAAAGGAATGGCCAAAATCTCTCGGTATCTGGGGAAGGGTTCTTTGAACTTTTGATGTGTGAGCAGAATAATGGA  
AACTTATCTGTTCCCATGCTTTTAAACACACACACAAACACACACACACACACAAACGTCATAGATCAAGATGTA  
ACAGGTTGGAATGGGGCTAGGCTTGGGAATTTTGTGACTCCCCAGGTGATCTCAATGTACTGCTGTTTATTAGCAGG  
CTTTGCCCAAACAAATACTCTTTCTCACCTACCAGGAGAAATCAAAGAGCTCTGGGTTAAACACTTGTATGTTAAACC  
AAAATGGTGGGAGCTTGCAGAGTAGAGGAATTAGGAGAAGAAATAGATATTGGGTCAAATTTGGCCTCAGGAACCAGG  
AAGTAAGAATGGCCAATCTTAAAGAGAAAGTTCTGTTGAAGAGGGAGCATTATCTGAAGTTGGAATGACTATGGAGGA  
CAATGACAGCTGTCCACAGGATGTCACTGGGCTGAGGAAATCAGACTGGAAGCCACAAGCCCATGGGGCTCAGGAA  
GCCTGTTTCTGAGCAGAACAGAGCTGGGTTTGGCACATGCCAGTGTTCAGTGAAATCTGTCAATTTTCTGCTTCCA  
CTTTTACAAATGAGTTATTCAACGCTACTTTGTTGACACATGGACTCAGCATTAAAAAATGACAGTGGAGATAAGGG  
TCTAAGGTAGTGATAGGCAAAATGAATGATGGGCATCCATCATCTGAAGAGCTTCTTAAATTCAGATTTCCCAACCCCA  
CCACAGACGCTGTCTCCGTAGGTCTTGGGTAGGGCTCAGAGCAGGCTGCTTCTGAAATTTTGGGTTGTGAGGTAAGA  
ATACAGGTGGGAGCCTGCATACCACCTTGCTTAAATTTTAAAGTTGTAAATCAGCCTAATGAAGTGTGAAGGAAGCTC  
TGGCCTACTTCTTGACAACCTTAAGCCTATACAGAGACCTGGAAGATCAAGTTCAAATGCAAGCTGATGATCCCTGGT  
TCTATCTGCTCCCTCAGTGTTAAAGGTCTGTCTTTTTCTTGACAAATATGCTTTTCAATTTGTCTGGAAGGCCGAT  
TCCAAATTCAGCAATTCATCCCTCAGTGTTGAGGGAAGGGCCACCCGCTCTGCTCTTCTCTTCCCATCTGGCTCTGT  
CTGGAACCACGAAGCCTCTGTGTGTGTGGGGACAAGCCAGCCAGGTGCTGCGTTTTGGCCAGTACCTCCTAC  
CCTCATACTACATATGTAGCCACCCCAAGGCATAGGGTTGTGCACACTGGTGACATGTCTGCCCTCTAGAAGAAGCATG  
GGGGAATGGGACCCACAGGCCCTGTTAGCTGATACGGGCCATGAGCTCCAGGTACGGTCTAAAAGTACATTGGTT  
TGGGCTCTGCGTGACCATATTCCAAGGATCCTGCAAGAGAGGAGGACTGGAGAAGGGAAGAGTGGGCCCTCTA  
AGGCTCCAGGGCAGGACCTCTTTTGTCTGGTCTAAGAGGGGTATTGAACCAAGTGGCTTAGATGCTGAATCCCTGG  
GCTTAGAACCAATGCCCTGGAGCATTGATCTCACAGTGTGCGCAGAAAGGGCTCGTTGGTTGCTACTAGTCTATTA  
TCACTCCAGGGCACCTGGGCAGTCAATGAAACTGAGCTCAGAAAAGTCTGCTTTATGATGTCCCTTCCACTTCCAT  
AACTTTCTCCATAAAATAAAACCAAGAAAAATAATTTTTCTTTGATYTCAAATCGTATTTAAAGGAAATAGAAATTT  
TATTTTTAAAGAAATTGCATGTTTTTATTGTCTATATATTGTTTTGAAATATGTACACGTTGTGTAATGGCTAAATTGA  
GCTAATTAATGTATAACCTCACATGCTTATCATTTTTTGGGTGAAAACACTTAAATCCACTCTCTTAACAAATTTTCA  
AAAAATTTTGA AAAAATATAGTTATTAACTGTAGTCTGTAACTATTCTTATTAATTATAGGGAAGTAGAAATTTTAA  
TAGTCATCTTTCTCATGCTTTTCTTGACTTTTAGATTCAAGAAATAATAAACTTGAATAAAAGAGATTAAATTCACAGT  
AATGCAATATTTCTGTAATAATTTACACCTTGTGACTGTCAATCAGCTGAGAACTTTACACCTCATTAATAATCCATT  
AGAACAATGGCTGTCCATTAGCCCTTCAGTTTATGCCCTTAAACATACTTGTCTAAAARCAACATTGTTTTTGGCAGG  
CTGCTCCTTTTGATAAGTGGGGACTTGCTCTGGTATTAACTGTTTCCAGGTCTCCAGAAAAGGCTCAGGGTATGTCTA  
GGGACATCAGTGACAACAGTGAGGTAGAGCAAGTCAATACTGTGCCACCTCTGCGCTAGCCAGAGAACCTCTGCTCCAA  
GGTGAGTTGGTTCCCTTTTCAATTAAGGTCTCAGGCCCCAGTAAATCCAGATATGGCTTTGGAGAGGAACGCTGTCT  
GAGTGAAGCTCCCTCAGTTTTCATAACCAGCTTACAGCTCTCAGCTGACCTGCTGTTAGCATGGCTGGGGAGCCCA  
GTGGTTTATTGAACTGGCTAATAACAAAGATTCTGAGATAACAGAAACAGGAAGGTTTGTATGATAAAGGAAGG  
AGATAAGGAGGATAAGAGGGGTAGTAGGGAGGAATAGTGGGAGAGGGGCAAGAAGCATTAAATCAAGATTGGAGAAT  
GGCTGGAAACAGTGGCAGAGACTCAATAGGAGAGTGACCTGACAGACGGGGAGGTGGCAAAAGTGCTTGACGGCACAG  
GCCACCCAACAGTTATTTTCRGGGACTGTTCACAATCTCATCTACTTCACAGTTTGTGCTTAACTCAGGTCTTAT  
TAGAGCCAGAATAAATTGCCTTGCATCGTCAGAAACTGACCATTTCCTGTGGTCTTCTTTGAGATTTTGAATCC

Fig. 6 175

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CAAGGACTAAATATCCCTATCCACTTGCCTTTGTTCACTGTATTGGATGATGTGCCATTGCTGTCTCCAGCATTCACT  
GAGAGCAGTACCCCAACATCCAACACATCTTTAAATGCCAAAGGGAAGTGAATATGCTGACTCTCTAAACTCTAACA  
TAGCATTATCTCTATTCTTATATTTTTTGAACCTTGCATCAAAACATACATAAATGCAGGTGCACAAATTGTAAGTGTA  
AAAGTCAATGAATTTTCACTAAGTGAACACACTTGGCTCACCAGAAGCTAAAGAAAGGGTGAACCTAGAAGGGGACTTTG  
TAGATTACACTTCCTGACACCATCATTATTTAAGAAAGAACTGTTTCTAGGTATATTTTAGGACCTTTTATCTGGTGA  
TATCTATCTACTAATTTAGGGGTGGGGTGGGAATTGATTCTTTTACAAGATTAGTGAAGCTAGAAACAACCTAGCTTTT  
AATTCATTAATGTAACCTACTTTCAAGTAGCTTCATGTGACTGAAATCAATCTGTTTATTTTCAAACCAAGTGGAAAT  
ACACACAGGGTCATTACATACATTTTGAAGTCTTCTGTTTCAAATGTATTGTAGATTAAAGAACAGAAATGTGGCCAGGG  
CACGGTGGCTCATGCCTGTAATCTCAGCACCTTTGGGAGACCAGGCGGGTGGATCACTTGAGGTCAGGAATTTGAGATC  
AGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATTAGCCAGGCATGGTGGTGTGCGCTGTAGT  
CCCAGTACTTTGGGAAGCTGAGGTGGGAGAATCGCTTGAACCTGGGAGGCAGAGGTTGCAGTGAGCTGAGATCATGTCA  
TTGCACTCCAGCCTGGGTGACAGAGCGAGATTTGTCTCAAAAGAAAAACAAAAAATAGAAAAAGAAACAACGCTATT  
GGCACACCCAGAATAATCACTATTGGACTTCTGATACCAAAAAACAAGGGGATTTTCTCGTTTAAAGTTTTATGAAAT  
GAAGTAATATTCTGTATACTCTTCCGAGTTTAGCTTCTTTGAGTAGGTTTGTGAGATTTATCCAAGTGTGGAATGGAGT  
TATAATTTATTCTTTTGGTTTTTGGGTGATTGTTTAAAGTTAAAGTTAAAGTAAACATTAGGTTTAAACCCAC  
TACTGGGTATTACCCAAAGGGAAAGAGTCACTTACGAGAAAGACCACATGCACAGGCCTGTCCAATTCACAGTTGC  
AAAAATAGGCAACCAAACTTGTGGCCATCGACCAACGAGTGGATAAAGAAAAATGTGGTATATATGCCCTATGGATTAC  
TACTCAGTCATAAAAAAGAAACCAATAATGTCTCTGGCAGCACTTGGCTGGAAGTGGAGGCCATTTATTCTAAGAGAC  
GTAACCTCAGGAATGGAAACCAATATCATGTTTTCACTTACAAGTGGGAGCTAAGCGCTGAGGATACAAAGGCATAAG  
AATGAATAATGGACTTTGGGGATGGGGGAGAGATTGGGAGAAGTTGAGAAATAAAGACTACATATTGGGTACAGTGTA  
CACTGCTCCGGTGATGGATGCACCAAAATATCAGAAATCACCATAATGAATGTGTCCAAGTAAACAAACCCACTGTA  
CCCCAAAAACTATAGAAATAGAAAAATGAATAAATAAAGTTAGGGATTAAAAAGAAAGTGGGACATGGTCTTCCAGAA  
GTCTAAAAATATTATAAGCTATATATAAAATACAAGTTTGTAACTATTTTTTGTAGTACCTGCAATCAGCAAGTTTGCATT  
AATATTACTGTTTACTCCCTCACTTTTTTAAAACACTAATTTTCTATTTCTATTTTAAAGACCTTACCTAAGATTGCTG  
TCCTGTGGAATGGTTCTTAGCCCCAGTGACCTTGTCTGTGTGAAGCATGAGTGAATACATACTACCATCTACTTTAGT  
GAATGTTGATGATAAAATGGCCAATTTCTATGTTTGTGTTTATTTTCAAGAAAACTTAGAGCACTCGTTCTCAAACTTT  
AGGATGCATCAGAATTACCTGGAGTGCCAGAATCCCTGAAGTGGTTGTAAGAACTCATTTGCTGGGGCCAGGTGCGGGT  
GCTCACACCTGTAATCCAGCACTTTCCGAGGCCAAGGAGGCGGATCACTTGAGGTGAGGAATTCGAGACCAGCCTGG  
CCACCATGGTGAAACCCCTTCTCTACTAAAAATACAAGATTAGCTGTGCGTGATGGCGGGCACCTGTAATCCAGCCA  
CTTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCGGGCGGAGGTTGCAGTGAGCCAAGATGGCGCCACTGCACCTC  
CAGCCTGGGTGGCAGAGACAAATTGAAAAAAGAGGAGTTTCTAGGCCCATCCCAAGAAATTTTGTATTT  
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CTCTGGTCATTATGCAATTTACGTTTTTAACTCCTTGGAAATCAACCAGGTAGAGATTGTACTCTTGTGTGCTATTTA  
CCATCCTAAATCATTAGCATCTATTATCTTCTCTGCCCTACACCACAACCTCTGCTTGTAAACCCATTGGAGCGTGT  
TCTATGTTCTTGGCTTGTGTTTACATATTGGTGGCCCCAAGTATTATCAGCTTATTAAAGACATCAGGCCACTTTTGT  
TATATCCCTGCACCTGCTAGCAGGGAGCACTGCAGGGACTATTGAATTCATGCACTGTATTCTCTGCTGGCCCATGAT  
TTCATCCTTATAGCCCCCTGCTTCTCACCTGCATGTGTTTTTTTCACAATTTACATACTGATAAAATGAATTTCTGCTT  
TTGCTCATGTAAGAAATATGGAGGCTGGGCACAGTGGCTCACACCTGTGATCCCAACACTTTGGGAGGCCGAGGCAGGCA  
GATCATGAGGTGAGGAGATCGAGACCATCTGGCTAACATGGTGAAACCCCTCTCTACTAAAAATACAAAAATTAGCT  
GAGCGTGGTGGTTTGACCTGTAATCCAGCTATTGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGTAGAG  
GTTGCAGTGAGCTGAGATCACGCCACTCATTCAGCTTTGGGGCCCCAAACCCAGGAGTGAGACTCTGTCTCAAAA  
AAAAAAGAGGAGTATGGAAGTTATAAAATTAATCTGTGATCATATAATGACTGTTTTCCCAAAAGGGCAT  
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CTTAWAAAAAAGTGAACAAAAACAAAAACAAAAAAGTATCTTATGTCAGAGGTTCTCTCTTAATTG  
ATGTGGGCTGTGATCTGGGCATAGAGATTGCCAAATTAACCCCGGTGATCTAACACATAAAATGTTTTAGAGTTTCT  
TAAGTACTTTTTTCTGATGAGTTTCAAGAGGGCCACTTTTTTTTTCTGGAAGATTATTTTCAAGAACACCTAGCCCT  
TCTTTATTTGTATCTCTGTAGATGTTTTCTTCTGAGTTTTTCTCTGTGAAACAAGAAAAATATAATGAAGTGTCAAT  
GCACGTTGCACAAAGCATGAACCTTTATTGGAGTCTTAGATAAACTTGTCTGATCTAGAAATGAAAAATAATGAACCT  
TGCTGAGTTCTGCATTMTCTGTCTGAAGTTAGCTTTTACCATAAGGATCTGGTGGGTAAGTGTGTTGTTCTTGTCT  
AATTATTGGAACAGAGTTGTTTGGAGTAGATGATTCAATGTGGAACAAATCGTCTGATTTTGGGGACATTTTCCATTA  
TAAAAAATTATACATAAAACAGAAGTATTGCTTTAATACTAAGATTGTAAACAATGCCATGTCAATCTGGTTGTAAT  
GACTCTGTGTCTATTCCACTGGTTTGGAAAATAAAACAGATTGATTTCACTCATATGAAGATACTTGAATAAGGTTAC  
ATTTAATCAATTAGAACTAGTTGTTTCTAACTTCACTAATCTTGTAAAAAGAAATTAATCCACCCCACTCTAAAGTT  
AGTAGATAGATAGATATCACCAGATAAGTTCTTAAATATACCTAGGAAATAGCTCTTTCTCAAATAATGATGGTGTCA  
GTAAGTCTAATGTAAGTCCATTTTATTTTACCCTTTCTTTAGGTTCTGCTGCTGATCTTAGAATAATGAAATGAAG  
TGAATTTGGTGTGCTGATGTTTACCTGTAGCCATTTTATATTTAGATTCAATGAGGTTTACTGAAACTACTG  
GGGAAACATTAACAACACAATAGGATTCCTAGATTGATAAACTTCAACACTCAAGCTATGACAGTTGTTCTCAGTCTCG  
TCTTTGATTCAATGTAATAATTTGGACAAGTTAATTAGCTTTCTTTTGTGCTGCTGTATAGGGGCAGGATAAACTTGAGA  
ATCCCAACAATTATTCAACCCAGATCAAAGATATTTGTCTCAGGAAATCAACAATATTAAAGAAAAATGGCTTTTGA

Fig. 6.175

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AAAAATTAAAAAATGTTTAGCACCTTCAAATATCAGATTACATCCTCATCATCCTCACTTAGAGATTTTAAAACTAA  
TAGCARTTTTGTATGGCACATTTGCATTTACAATGCATTTTGTATACACATTCTATTTTCCCTAAACCCAGGGAGACTG  
GAAGAGCAACAATTTACATATTTGCGTATTTTGTAGAAAGTGAGTCTTAGAAAGGTTAAGTGACTAACCTAGGCTCAAAC  
AGCCAGAAGTGTGTGAACAAAGGCACCACACAGCTTTGCTGACTGTGAGCTCACTCTTTCTACTCCTCCAGCTATGCC  
AGCTATACAATAGCAACTTGTGAGAGGTGTAGGTGTGAGGGATAGTAGGGGGGTAGGGGTGGGGAGGGGAAGAGGAAG  
CAAAGTCTCTACTGATTGTATTTTATCACTTTTCTAAAGGATTTTATGTTTTACAGCCTATTTGTATTGGTGGAA  
ATATCTCTACTGGTGTCTATAAACAGCAAAACATGCACTTGAGACTCCCTGCAAGCCCATCTAAGTTTAAAGGGTAAT  
TGAGATAGCAGCACTTGATACACATATCTTCATTTACTATATAGTGTGATCAATTATTTTCCCTGATACTAAGGGAAA  
ATTAAACATCTTTTCAATTGGTTGTGCAATTTCTTCACGGTGTTTTAAATGCACCTTTGCGAGCTTTTGTAGTTCTCAA  
ACTGGCCACTAGATGGTAGTGTTAGTTAGTATTGTGCGACATGTTCCATTGTGGGAACCTTTGATTCTAATAGGAACA  
TTTCATATATAACTGCACTGAAACTGTTTCCCCAGTGGCTGAGGCACACGATAAAAACTCTGTGGCTTGAGCCTTCT  
TTTTCTTTTTTAAATGACTAGACCTCCCTTCATTCAACACAGACCTTTCTTCCACATACTACTTATTAGCAATTCATTT  
TTCTCCCCATAATAGTCTTTTTTAAACACCCACAGTGAGGGAGTGTAAAGTCCCTGCTTTTCTAGAAATTTTGCTCTA  
AACTTCTGAGAGGTAAAGCAGATCTGGTGCCAAGATGATGTGTCTAGGGAAGTACAAGGACAATAGACTTAAAGACCT  
GTGCTGCCAGCTTGTGAATAATTGAAGATTTGTATCTCGAAGTAAATTTTCAAGTACCCCTGTACTTCTTGGGTATCT  
AAACCAAATAAGACAGAAGTTGTAGTTGCCCTGGTATGATCCACATTGCCAAAATTTTACAGTATTTTGGACAATCCA  
ATAGATGTCTTCTCTGCTTTGTTTAAAGCCTTCTAATTTCCCCAGCAAGACAAAGCAAAATTAATTCACACAG  
CCTGTTTGCATGATATGGTCCGATGGTTTACTATGCTATGTTTGTGCTATTAGTCAACCAAGCACAGAATCTAAAGTCA  
TTATAACCATTTTCTGCCCCCATGACTGCTGATTCTTCCAAAACCATAAATCTCTTTACTAATTCATTGAATAAC  
CAAACCTGCATTTTCAAGTCTCTATTCTTTACACACCCCAATAAAAAATGAGATGCCATCTGTTATTTTATTCAATTAAGTC  
AAGTYCTGTTTCTCATGTTCTGCGGAATTTCTCCCATGTGGTTTACTGTTTGTTCACCTTTCTCAATTTCCCTCAT  
CATTACACATAAGCATTATAAAATACCTCTTCATAAAATCCACTCCAGTCATTCTCTGCAGTTAACTCCAAGATCTCC  
AAGATCAAAACAGACCCCAAGTTGTCAATGAAACTGTTTCACTTGACAGTGCAGGGGCTGGGGGTGTGGTTACTTGGG  
TGTGTGAATATGAACCTTTCGGTTGTCTGAGGACAACAGGAAGCCTTGTCTGCTGCTATCATATTAACTTTAGTTA  
AGATTTTATTTATGTTTATGAGATAGGAATTTTTCCTGGGGTCAACTGGGGTCAACCTATTTCTGAGGGCTAAAT  
AAAATTGGCTGCAATCCCCATCGTACAGATTGTGAAAAGTCTGCTTTCTCTCAAAGCTTTTATGAATCCTTGATCAC  
ACCAGGCCACACATCTCTGCTTCAGCCAAATTTGGTTGCGTTTAGGAGTTCTCTCACAGTAGCTGTCATCATCTCTTTT  
TCCATACCACAGAGGCTCAAGGTAGAATGAGCCCCCTTCTTAGTTTCCCAACCACAGCCTTCCCTCTGCCCCAACA  
AAACAAAACCTTGTTCACACATGGGATTTCTGCATTGTACCCACTTTTACTGATGGTTTGAAGAAATGGAAGCAATGTT  
ACCATAATGTGAGAAGTGACTGTGTTTGTAGCTTTTATATTTTAAAGTCAAGTTACCCAGTGATTTCTATATGGAAG  
TGTTAGCCTTTTGTAGGTTTGTGCTGGGTTTCTTTTCTTCTTACCTTCCGTACCTCTCTCACTTAACTTTAGTTA  
TATAGGAACTCCAGATTTTCTTACTTAATGGCATTTAGTGCTTTACGTCTCTCTGCTCCATCCACCTTTTAACTCCC  
AGAATACGCAAGTGCTCAGCAGAACAAATGGGCTTTTATGTAATATTACCACAACCTTGATAGAAGATATTTTGGTT  
ATAAATAGCTTTTAAAAAATTTTGTGGTATTACATGTGGGTACGATGACTAAATTTGAATTTTGTCTCTTCTCAT  
ACACACAAACACACACACACACACACACACACACACACACACACAGGCATTTATATATAGAGAGAGAGAGATG  
GAGACTGTCTGTCTATCCAGCTGGAGTGTAGTGGTGAATCAGAGCTCACTGCAGCCTCAACCTCCAGGTGCAAGT  
GATCTCTGCTTTCAGCCTCCCATGTAGCTGGGATTACAGGTGCGGGCCACACACCTGGCTATTTTATTTATTTT  
GTAGATGCGGAATCTCCCTATGTTGCCCAGGCTAGTAACCTCTAGGTGTAAGTGATCTCTCCAGACTCCGACTCCCAAG  
TGCTGGGATTACAAGTGCAAGCCCCATACCCCGAGCCTTCTGCTCCTATTTGACCTAGAAATTCATATAGTAGCCAT  
AGCATTCATTTCATTCAACAAATAATTATGAACACCTACTTGCAAAAAGGAATTCAGTTCCTATTCTGTTGGGGTGATA  
ATCTAGTAAATAATAATAATAATGAAGAGTGTCCATGCACTCTTCTAGGCTCCAATAATCCCTATGAAGAGAGGGT  
ATGCTTAAACACAGATGCTTATTTTCTACGGTTGTGGAGGCTGGCAGTGTGAGATCGGGGTGCTGCTAGTGGAGT  
TCTAGTGAGGGCTGGCTTCCCTATGCTTACCCAAAGTTTATGTGTTATTAATATCAGCAGCCCTCTATCTCTGGAT  
GTCTCTGGTGCCTTAGAAGACATATTCTCTACAGTTAAGAGCTGATCCTCAAGAACGGACAGGGTAAATATATTTATA  
TTGCTAAATGCCCCCATTTGAAGGGCTATATACCATTTCATGTAGCAAGGAGCACTTAAATGGCTCCAGCAGAACAAAT  
AACTCTACAGAAATTTTATTTGCCCCAAGCATCTAACGAGCTGGTCTTCCATGCATGTGGTGGCAGCTCTGTGAAC  
TGCTTCTCTGAGATCTCTTAGTGCAAGCCAAACAATTCAGTACATTTCTTCACTTGCTTTTGGCATGTCCATGAC  
AATATTTCCAGCTGATCTAATCTTAGAAAATCTATTTCCCAAGCAACAGGTCTTCTATTTTCTGCTTAAAGAGTGT  
TTATTTTGTCTTTTTCAGCAGCTTCAAACTTCTGACTTGGTTGACTTTTTTTTTTTTTTTTTTTTAGAGAGAATGTCT  
CTCCTCCATCTGCGAAGTGCTGCATTTTAGGTTTGGTCTGACATTTGATGCAACGGCTCAGGTATATATGACAAGGAA  
ATGGAATTTCTATCTCGAAATCAATTCTGAACAATTAAGAGCTGAGAGGATAAGTTTATCAAAGGTGATTTGGTATTG  
CGACAGGCTGCTCCAAATCAGAACTCAGCAACCTGATTTTGAAGAAATTTCCAAGTTTCATGAAAGAACTCACTTTGTACA  
TAAGGGCTTTTCTACTTGTGTTGGGTTTGTAGCATACTAGATAGCTTAGTGGGATATCCATATTCTTGCAATTTGATGATCA  
CATTTGGCATCTAAATATATGCTGTTTCAAATGAAGAAATACTGCTGAATAAGAGAGCTAGAATGAATTACATACA  
AAGAAAACCTTAAATAAGTGTCATCTAAGAAGATGAAAAGCAACAAAGTACATATGTTCTTAACCTTTTGGGGGCTTGC  
CTTTAATTTTAAATAAGGCAATTATCTGCTATTAGTAATTATAATAGGAGCTAAATCCAGTTAATAGTCACTGTGT  
GTGAAACCTCTGTGCTGAGCACCCAGGCTATGGCTTCAAGAGGACACAACTCTTTTGGAGAAAGCTGAAGACA  
GTGGGGGCGAGTGACTGAAGGTACCGAGTTGGTAAAGGACAGAGCCAAAGCTCAAACCCACACAGCCACATACCTGCAAC  
TGTGTGTTAGCACTGCACTCCCCAGTTACCAAGCCTTGTATTTTCCAGTCTTAACTCTGCTTAAATGTCATGA  
AGAGTAATTTTCAATTTTTTCTTTTCTAGACTGTAAATTTGTATAATTGGATTTCTACAGGCTTTTGTGTTTCTGGTG

Fig. 6: 176

[illegible]

SDOCID: &lt;WO\_02074992A2\_1&gt;

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GGTGTGCTTGGCCTCTCCATCATTACCCTGCTTTTATGAGGGTTAGCAGCACAATGTCTTCATTCTAAAAACACAGAAT  
CATGAGGTTAAAGAAAGCATGCAATGCCATCAGCTGAGAAGAACCAGAATTACAGTGCAGGTTCTCTAAAGTGGTTTT  
GTGTTGCTCTCAGCGCCGTGAACCTCCACCATTATATTCATAGCTTTTTAGCCTTTGGCTAAGATCAAGTAGAGTGT  
GTTCTCTGGCTTTTAAATAAGTAATGTGTTCTCCATCCAAGGACAACATATTTAGGCTGTACATGCATTACGAAGTATT  
AAGCTCCTGTAACAGTAAATTTCTCAACAGGAGATTATGTGAATTTCTTGGATGTTATTCTGTTGACATTAGGAACA  
ATTAGGAATATAAAATGCCATGGCAGATTTTTCTGTGATGCTGGACGTACTGTGAGGACTCTGAGTCTGTGTACTCGGA  
AGTCTTCCTCAGACAGGACAAGGCGCATTTCTTTCTTAGGAAGAGAATTAACAGTGCATCCCACTCCCTGTGCTC  
ACCACATGGGCACACATCCAGGGCGAGGGTGGAGTGAGCTCAGAAGAACCACGCTGAGCACAATGAAAGCAAAATTA  
TTATCAGAGAAAGAAACAGATTGCAGCAACCTGGGTTTAAACAGGACACATAGTAGTAGACAGGAAGTTTTCTGTATCT  
ATAACACATTTTCATATTAGGGTCATGTTAATTTACAAATGAATTCATATTAGGCTCAATTAGAGAAACAATAAGAA  
GGAAGACGGGATGACAGAAAGCATTGAAGAGGAGGAAGCAGAATGGAGGCAGAGGGTGAATCAAAAATAAGGACAAAG  
AGAGGAAGGGGAAAGAGAAAGAAAATGAGAAGTAACGTGAGCAGCTCCGTAGGTTCTGAGGTGAGTTAGCTGGTCGTAG  
GTCAACAGCTTTAGTCACACATCCTGTTATTCACTTTGGGCATCAGAGCACATTTTCACTACCTTTGAAATTTCCATA  
CAGTCTACAGCATTGTTGTAGCAATCTTTCTTACCGGAAATGCTTATCTGCTTTCTTTTCAATCTTTGAGGTCAA  
CTTATTAAAGGCTTTAGTTTCAATGAAGCCGAAATATTTTGAAGGTAAGAAAAAATGTGCTTTGGTCTTAAATAT  
TTCCACTTAAATCTTGATTCTGGGCTACTTTAATAATTCCAAAATAAGAGTGAGTGGCTTCTTTTTCAATACTGAAA  
TACAACATTTAAAAACACTCATGTAATTTATTTGCTGTGTTTCAAGTTGTTTGAAGTAGACAAGGTTGATTTGACAGAG  
CTGTGTTTTAACTGGGCTCTACATGTCATAAATACTGTCCCTGTAAAGCTCCTGTTTCTCGTCTACAGATAGAGG  
TACTCCAGTAGCTCTCCAGGCTCTGTGTGTCTCTGTGTCAGGTTTGGCATAAAGTAGACAGGAATGGTGTGAGTTCTC  
CTCCCCAACTCTCTCCAATGACACTCCCAAGTGACAGAAACGTACAGAAAGAACTCTTCTGCTTTTCAACTTCC  
ATTGATCAGACTGAAAGAAATATCAGATTAGCTTATAAGGTCAGAAATTATCTTCACTGTATAGCTCTGTGTACTCTA  
AAATCAGAGCAACATAACTTTGGTTCTGGATGAAATCGAATCAGGACTGACTCTACTCCTAGAGAACGTCGACCCCA  
AACTCCTGTTTTGTCAGAACCTGAAGGAGCAAGTAAAGATGCCAGCCATTAAATATGAAGACCTTCAGAGACCTAGAAC  
TAAAGGAATAAATCAAGGATTTCTATTTTATCTTAGATTAAATGCCATTTATATGCATTACAGGCGATAGTTTTCACT  
CCCATGAGGAATAGATTATACCTGTATAAAGCTGGGAATATAATGACTAATTAATATACTGTATGACTTCAATATAG  
CCAAGAAAATTACAATCATTCCAAGTAATACTGTTTTTCCCCAGACACAAATCTGAGGATCTTGAATCTTAGCACTGGA  
AGGAATGTAGACATCAGCAGGCTCATCACTTCTCTGGCAGCAAGAACTTGACTTGCTTGGACACATGTCTGGTAGCTTC  
TTCTGGGAACATAGATGACATAACGCATATTGCTTTCCAGGCACTTGATCTGTGATGAGACAGCTCTGGCCTTTTA  
GAAACCAGCCTTTATACTGAGCTGTGAGCTGCTTCTCTGTATTGACATTTTGTGTTCTTAATCTGAACAAAAGTT  
TTTGTGAATTTTCTTCTGGAATGGTCTTACCACCTGAAACAACGTGTCATGCCCATCTGAGCATATTTCTTAGGTGA  
GGCTTCCAGTTTGGGAGACGCTTCTCTATAAAATATTTCTGAATTCATCAGTATCTCTGTTCTATAAAACCGGTGG  
CTGTCTACTTCAGGCAATCCTAACCAAGCTCAGGTAACAGTGAAAGTGAATGTTTGTGCTGTGAACAGTATTGTACTGTT  
GAAGTTAAAGAGGTCTATGATTACATTGTGTTTATTTTGGATTTTGCAATTATTGAGTATTTTTTACTTTATTTCTTTT  
TGTAAGCCCATATCACTACCTATAACAAGCTTTTGATAAGTGAACCTTCTAATTTTTCTATTCTATAGCTATGTAAG  
GGAATCTTTAAATTTTGGCAGGACTTTCTAGCCTAATGCAACAAGGGAGTTACATTAACATAATAATTTAAATTTCA  
TTAGTTTTTTCCACATTTGCTGAAGCAATTTCTCTACACAATCTATTTTCAATTTTCTGGGAGTTCTAAATGTGTCCC  
ACAGGAACACATCCCCCTTCTTGAACCACTGCTCTTCCACCAGAACCAGCAGCTCTCTGGACTCCCCAAGGCTTATTA  
GGTCTCATTGTTACCCAGGGAGTCAAGCAGCTATCACAAGGCCATGCTTTGGCTTTGTAGCTGCTCCAATGGATGTTAA  
AATTTCTCACTTTGTTCTGTGATCTGTACGGAATTATATGCAACATCTCTTACTTAAAGCTCTCTGCTTCTCCAGG  
ATCCAGAGATTCATCCCTGGAAGGCAATCAAGTGACAGCTGCCATATTCATTTAGAATGCCTCCTTCTTCCAGACAGC  
CAAGCTTTGTTATTTGGGCTCAGCTCTATGTGCCAGCTCCTTCTTCACTACAAGGAGCTCTCTCCAAAGAGGTCACTA  
AATCCCCTGCAATAGTCTTTAAGTACGCTTTTCAACCTTGCTCTTTTCTTTTCTTTGAAATGACACTGTACCATGA  
ACATTTTTATGAAATCATTAAACATGTTAAACTTCATCAAGGCCATCATTTTAAAGCTCTCCATGATGCTCTATCTATA  
GAGATACACCATACTAGAATGCATTTTTTTTCAATTTTCTATTGCTGAGAATGTTGGGTTTTATACATAGCTTGTATTT  
TAAGTAAATGTTGTGCTTTACCTTGTCTATTATATCTTTAATTCAGCCTACTGTTAGCATCTGTGGATGATTTCTA  
TGCTTATATGTCACCTCAATATATTAGCATCATTCACAGCTTTTGGCTTTACATATGCATTTTAAAGATGTGTCTTAC  
CTTTTAAACATCAAATCAGATTTTAGTTGCTTGATAGACCAGCTTTTATATTTTCACTTTATGCCACCTCTAAGGTGCT  
TGATGTGAGATGCCTATATAAAAGACATACAAATTCAGGAGTGAATTTAAATCTCACTTGAAATTTTAAATGTCACTG  
AATATTAATTTGTGTCGCTAATTTGGTATATTTTCTAGTAATCACTTCAAAAGCTCCTCATTAAAAATAAATCATAAAA  
TATAGAATTATAAGAGCTTTTAGGTATAGTTCAATGATCTAATTCATCTATCTGTCCATCTATCTTCCAGCAAG  
TCATTTATCACCTTCTTCTGTATATTACAGATGATAATAAAGACATCTGGGACAAAAAGGTAAGTCACAGACCTACCC  
ATGTGTATGGGTGATAGAGTAGTGAATACAAGTGACAAAGGGTGTGATTCTTCTGTTTGGAGAGGTGAAGAAAGTATTC  
CCAAAGCAAGTGACATTGAATCAGCACCTTAAGATAAAGCAAGAACTCAGCAGAAAGAAAGTGAATGGGAAGATGTGG  
TAATAGGTTTAAATGGACATGGCATGTCGGCACTAAATTTCTGTAGCTCCAGAATATTTCTCCCCAGTCCCCCTGAGACG  
AAGTTACAGAGCTGTGAATCCGGTAGTGAAAGCCTTGGTATAAGGCGCATAAGAAATGTGCAGATTATCTACCATGAAA  
TAGAGGAAGAAATCAAGGTTATTCAAGTAGAGGAATGACACGTTTTAGAAAGACTTTTGTATAACGTTATGGGAAATG  
GATTATAGGCTGGAGGCAAGAGATAAGACATTGTGTCAGTGTGACAGAATATTTTATAAAGCACATAAATTTTATACTC  
AGATCTATGTGAGATGAGACCAATTCATGTCAACATGTCCAATGTTTTTGAAGAAATGCTAAGTTTTTATTATCGCTTT  
TGTTTATTTCCCTGTGAAATATAGTAGGCTAGCCCTCTATTTCTCTGGCGAAATCTTTAGATAGGTGGAAAAAAAAT  
GTTGAAAAAGGCATCAATGACCTCTTTATCTTGGTTTTATCTGCTTTTGGGAAGATACCTGATTCAAAGCTATGAAA

Fig. 6: 178



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AAGCATCTCACCAATCCCCTATTTCACTTGGTTGGACGATGTGTCAAGAGAACGCCTGAGGCTTCTCTGTCCGTTAAAC  
AGGCCAGTCATGAGTCACAGTCTGAACATGAGGAAATGTTTCATGTACTTTTTTCATAGTCATGGCAATGAGACTTTTTTTG  
TGCCCAAAGTACTATCCTCGCCTAAAGTCCCTGTTAAAAAGGTTATTTTCTGCCACAGGCAGGTAGCAGAATGTCAAGA  
TCCAATTTCAAGTGCTTCATCATCACTCGGATAGCCTCAGGAAGCTGAGGTTTTACAGCTGCCTGGAACCCACATGCTT  
CATGTGATGTAGAGCAGCCCTGTTAATTAGCTGTTTCAGGATTTCTTAATGCCCTATGGCTTTGGAAACACTTGTAGCC  
CACAGAGGGAGGGGAAGAGCTGGAAGCAATTGGACTACAGCCTGAATTTATTTTAATTCAATTAGTAACACCTTATC  
TTTCTAAATCCCCTGTTTAGAATCTGTTGAAAAATTATAGTTGATTTAAGTTTTTCTCAGTGATGCATCTGAGAGAAGAG  
GGAGATTACAAATTCAGGTTTCTGAAGCCACAGAAATGTGGAGTGCTGCAGAAAGAGCTGTATCCATGAATCATGTCCAG  
ACACATGTATGCAATTTTCTAAAGGCTAGAAAATAGATGCCGGGGATGGGGAGAGGGGAGGCCAGTTGATGTGGAAAGG  
CTTGTGTAGAGTGCCACAGAGTCTGCATTTCTGTTACCTACCAGAAGAAACACTGCCAGTTCCCCCACCCTCACCCC  
CCAACCATTTCTACTGCAGAGAGCTGGCACTCAACAACTCATAATTTTTCTCAATACAATTCTCATGACATAACCTGA  
CCAACCATATGAAACCTAATGAAGAAAACACCAATTGCCATTTGGCAACAAATGCAGGAGTTGCATCACAAGTAAACCAC  
ATACTTTACTTCAAAATTTGAACATTAGAGTACCACCGGCAAAAACATGGTACCATCCTTCGGTATGGATGAGATATC  
AGTTTACAAAACCTTCACTGGAAGTCCATACCAAAATTTTTAAAAATGCATGCAAAAGCTAATTGTGTTGACATCTTTC  
TTATCAGAGCTATTGCAAAATTTTGTCTAGAGGTGGTTCTTAAAAACAGCCCACTGTCTGCCATTAATCATGTACAT  
AGCATCCTCTTCTCATATTCATCCTCTGAAATACCAAGAGGTGAAAGAGTGTTTCAGTAGCTCACCATTCTTGGCTGT  
TACATAATGGGTGAGATTCTTTCTGAGTAGTAGGAGAGGTGAGTATCCAGATCTATATATCTTTGTGCTTTTTCCAC  
TAATACATTCTTAGAACCTAGTAGGTGCTCAATAACGTTAGCTGTATGAATGAGTTAGTGAATCAATGAATGAAGTGT  
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AAAATTGGGAATAGTAAGTAGTCTTTCCATTTCCCATACCAAGGTATGCTTGTATTCTTCTATATGCTTATGAAAGA  
AGAGAAATGTGGATTAGTTATAAACTATTTGTACATATTTGTATATGTAAAAATCATGTCAAGTTTGGAGGCCAGGAT  
TTCTTTGTATTGATTAGTAAATTTTCTAAATATTGCCCCATTTGTATTAGTTCAATTTCTCATGTTGATGAAAGACATACT  
CAAGACTGGGTAATTTATAAAGAAAAACAGGTTTAAAGGGACTTACAGTTCCACGTGACTGGGGAGGCCTCACAATCATG  
GTGGAAGGCCAAAAGGCATGTCTTACATGGTGGCAGACATGAGAGAAAATGAGAGAAAACCATGAAAAGGGGTTTCCC  
CTTATAAAGCCATCAGATCTTGTGAGACTTATTTACTACCATGAGAACAGTATGGGGAAAATGCCCCCATGATTCAAT  
TATCTCCACAGGTCCTCCCAACACATGGGAATCATGAGAGCTACAGTTCAAGATGAGATTTGGGTGGGGACACA  
GCCAAACCACATCACCCTTTTAAAAACAGGCTTGATATCAATTTATTGCTAGAAAACATAAATTTGTATTTTCTTTTAC  
ATTTTAAATGACTGATTGTACATTTGTTCCCTCAAAGAGGCTCTCCAAATACTGCCTAATTCCTATGTTAATAGCAA  
CCCAACATGTTTTCAATACTAATATTAAAAACAAATAGCTTAAACAAATACAAAAGGTAATGCTGTTTTATACAATAC  
GGATTTGAGAAATGCAGGTTTCAACCTGTTCCACACCATGCCCTTCATTATATTCTTCTGCCAGAGATTTTTATTCTTTA  
CTTTTCATTCAATCAGAAAGAATTGAGAGGAATTTGAACCCATTCTGCCTATTTAGAATATCATTGTACTGACTTTAA  
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TTAAAAAAGGGAAGTTACTTTTGGGAATCAGAGACATGTACCTCTTGTCTCTTGGAGAGCTGTGGGTAT  
GGGAGGGAACCTCTCATCTGTTTCTGATATGCAGTGACTTCTCTCTTACACAGATGAGTCTTAAACCTTTGTGAGC  
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GGCCCAATTTACCAACTCACTGCAGCCTTGACCTTCCAGGCTGAAAACCATCTTCCACCTCAGCCTCCCAATAGCTAAG  
ACCACAGGTGCACACCACCATACCCCTAATTTTTTGTAGAGATAGGGTTTCGCCATATTGCCAGGCTGGTCTTGAAC  
TCCTGGTCTCAACCAATTCACCTGCCCTTGCCCTCCCAAAGTGCTGGGGTTACAGGTGTGAGCCACCATGCCTGGCCAG  
TTGCCCTGGTCTTTTACATGGAATGTTCTTTACATGGAATGTTCCAGGATCAATTAAACACAGATAAATAACAACCTTATG  
TTTTGTAAATAAACACATCTGAATGGAATCTTACTCCAATTTAGATAGAAATGATATTTTCTTTTCAAATGAAATAA  
ATGTTTTAGACTAGGACATCCCAAGTGAATTGAAGATTGGTACAGGAGCCTGAGGAAGGAAGTTTAAAGAGAGTGAAAGC  
ATGAGAGAAGAGCCAAGATTATGTAGCCAGAGAAGGAAGAATTATTACCTACCATTACTTTAAGGGAGCTGTGCTTCC  
TCACAGTAGTGGAAGACAGATGCTCATTTTATTTTCAAGACTGTGTAAAATAAATGGCCTTAATTTATAGATGTGGATG  
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AAAAAATGATGCCTGGGTCAACCCCTGAGAGATTCTTATTTATCTGGTCTGGGGTGGTGTGGCCAGGCACTGAAATT  
TATAAAATTTCTCCGGGTGATTCTAATATGCAGCCAAGGTTAAGAATGCAGCTGTACAGCTGTAGATGGAAGAATACCAA  
AACCAGGCCTTCTGCTAGTGCCTGAGCTTCTCCTCATTTTAGTTTTCTGTGATGTGTTTACAGACATTGTTTCTAGAATCTC  
CTGGGTAATATGAGTTATAGTCTTTGGATGGAGTAATACATTAACACATCCATACTCACATAGTTTGAAGGGGCCAG  
GATGCAAAGGAAGTTGGAGGAGGAAGAGAAGGAATGGTAAAGTCCAAAGCATGGGTGAAGGGGGGCCAATATAAACC  
CACAGAGCAAAAAGGAGATGTTGGGTCTCATATTTCTATTACATAAATTTGGAATTTACATTTCTTCTTCTTCTGCTG  
GTCTTTTATTTCCACAAGTCTCCAAATACAGTCATAAAATTTCTCATGAGTTGTTATAGCAAAATGCTTATCATTTACTA  
TTTCTTAAATGAATGCATAAACTGTATTACTTTGGCAGAAAGGATGCTGCTGGGTATCATATGTAATGTATACTAGTAA  
GGTGGACAGGACCATTAGGACTTTAAATTCCTTTATAATCTCAAAGTCTGTGATTCTGTATCTTCTGGTCTTGAACCT  
CCAGAAAAGGTGGTAATCACTGGAGTAGGCTATTTATGGGCCTGTGAGATAGTGAAACATGCTATTAAAGACAAAATGAG  
AGACTTCTCTCTGAAATGGTTCATATAAAAGTAATATAGGCTTAAAGTATCCAGGGGCTCATGTAATCTCTCCATG  
TCAGTATCTTTTACGGGAATTTATTTAACCAACATGATTGTAACACTACGTGTACATAAAATCCAGATTGTGTA  
AGTTCCCGTTTAAAAAGTGGGTACTAAGCCTAAGATATTAGCAACTTGTATCTGAAAAGGCCCTCACATCTAGAAACT  
ATAAAGAACTTCTAAAAATCAATCAAAACAACATAGTTCTTAGAAAATCACAAGGAACAGGTTTTTTCAGACTCGAGGA  
TGTCTATATGGTGAAGGAGCAGCAGTATTTAGAGTTGGTCTGAAGTACTCACAGGAACCTATTTTTAAATGTCCAGA  
AATTTGCTAAGCAAATGTTAATGCATCAATTATCTAAAGTTTAAATATGTAAACCTCAAGTTATCTGAAAAACATAAC

Fig. 6.139

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ACATACTCAAACTCTCATCCCTTCTAAGTGTCTTACTACATTCTGTTATTTCTGTTTGTGAGGTCATTGTGTTATTG  
CATCTGTATGATGGAAACACTGTATAAATGACATGTTATTTCCCACTCCACATAGGCTGATATAACGTTGGTAGCTTA  
AAATCAGCTTTAGTCCAGGTATTTATACAATGGAAATGGAAATCAGCATACGCCCAAATCAGGAGTTGATTTTTTTTT  
TTTTTTTTTTTTTTTTTTTTTTTTTTGAGATGGAGTGTCGCTCTGTGCGCCAGGCTGGAGTGCACTGGTGCGATCTCGGCTCA  
CTGCAACCTCCGCCTCCTGGATTCAAGCGATTCTCTGCCTCGGCCTCCTGAGTAGCTGGGATTACAGTTGCCCGCCACC  
ATGCCCTGGCTAATATTTGCATTTTTAGTAGAGATGAGGTTTCATCATCTTGCCAGGCTGGTTTTGAATTCCTGACCTC  
GTAATCCACCTTGCCTTGGCCTCCCAAAGTGCTGGGATTACAAGCATGAGCCACTGCGCTCGGCCCATGATTTGATTTTT  
TGTTAATGGTGTGACTGTCTACAACTGATTAAGAAAATGTTATTAAAGTTGTACATCATGTCTGCAACCAATTAAT  
TGTAAGTAGCACAAAAATCTGGGGGAAACAGTCTTCTAGACTTTCCAGATGCAGCAAAGAAATGCTTGTCCAACA  
TACATTTTTATTGTTTCACTTTTGTCTTACTTAACCACTAAGTAAGACATAGTTCTACATAAACCAATCATGTAGGAA  
TTACACTCCTTTTTCAATTACAACCTTTGGTTTGATTACCTTTTGGTCTTCTGTTCTATCACCGTCTTTTTTTTTTTTT  
TTTTTTTTTGAAGAAGGAGTTAACTCTTGTCAACCCAGGCTGGAGTGCACTGGTGTGACCTCCGCTCACCATAACCTCTGC  
CTCCAGGTTCAAGCGATTCTCCTGCCTCAGCATCCTGAGTAGCTGGGATTACAGGCACCTGCCAGCACATGTGGCTAA  
TTTTGCATTTTTAGTAGAGACAGGTTTCCACACGTTAGTCAGGCTGGTCTCGAACCCTGACCTCAGGTGATCCACCC  
TCCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACTGCGCTCAGCTCACCATCGCTTTTAGATAAGGAAACT  
GAGCCCTAGAGAGTGGTTGGCTCGCCTCAGGCTCCAGGACAAATATGACTTAATCAAACTATACTCCTGTTCTTTTCAT  
TCACATAAACTACTTATCTAAGGATGCTGCAGCAACACTGCTGTGAGGCCAGAAATCAGTAAGTTTACAGCTGAGGCC  
TTATCTATAGACCATTGATTTTGTCTAAGGAAAAAGTTACACAACTAGCAATAGAGTCTGACCAGGCATTACAAATT  
CTACACTGATGTGTAAGAGGGGACTAGGCACAAAGAATACATGCTTAGCACAACTATCTTTATTATAGGAAAAGCAA  
TTTAAACATATTTTACTGAGTAGTGCCAGAAAATACCGAAAAAGAAAGTTAATGCTTTTTCTCTCAAAACCTTC  
TATAATGTGTAGGCATTGTCTATATTAGAGACTCCTGGGAAATGCTTGGTCACTAAATTTGTAAGAGCTAAATTT  
GAACATTGACTCAGAAGCAATGTGAAATACATCTTCCCATTTCCAGGATGGAGTGCACTGGTGCAGTCTCAGCTCCTG  
CAACTTCTGCCTCCTGGGTTCAAGCAATTCTCCTGCCTCAGCCTCCTGAGTAGCTAGGATTACAGGTGCCTGCCACCAT  
GCCAGCTAATTTTTTAATATTTTTAGTAGAGACGGGTTTCCGCATGTTGGCCAGGCTGGTCTGAACTCCTGACCTC  
AGGTAATCGACCTGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCGCTCACTGACGCTCTT  
CTTAATTTCTTCTGCCTAAGAAATAGAAGGTATTCTCGAGGGAAAAAGGCATTGACAAC'TAGTACAGGGAAATTGATG  
ACAACATAAGGCTGTTTGAAGAAAAACGTGGGATCTCAAAGACTGTTGGTGGGAGTGTAATTTGAATAATCTACTTTG  
GAGAACAAATTTGGCAGTTTCTATTAAAAATTTAAAAATGCTGATATCTTATCAGTTAATCCTACTTCTAAGTATCTATTA  
TTAAAAAAAATACTTGGCATGTATTCCCAATGCGTTTTGCAAGAATGTTCTTTGTAATTTGCAAAAGGTGGAATCTGA  
ATGCCCTCCAGTAGGGAAATGGCTAAATGAAATATGAAATAACCATACTATTGAATACTATGCATCAGCTAAAAATAGC  
AAGAGATCTTTGTTGAGTGAAAAAATAAATTGCTGATTGATCATTAAATATAACACTATGTTTTTAAGAAGCCTCAGAA  
AACAGTAATATATGATCCTATAGGCATAAAATATTTATGATATCACACGGAGGTCTATAGAAATTTATTGTCTCTATG  
GTAGCCACTAGCCACATGATGCTATTTAAGTTTAAATTAATAAAATTAATAAAAAATAAAATTTTATGTCTCATTTCT  
ACGAGCCTCATTTCAGTCCCTAATAGCAACATTTGAATGGTGGCCAGTGTAATGGAGAGTGCAATCTAGAAGAACAAA  
CACAACTGGTAACAGAGTTACCTGGGGGAAGGTTGAGTTTGGGATGGAGGGCTACAGAACTTTAGAGTTCTGCAGAA  
CTTTTAACATTTTTACAATGAGAATACATCATATATTATCTAGCTAATTTTAAAAACAAATACATTGTTAAAAATGAAAAGC  
ATGCCCTAGCCAAAGGATTTCTTTCTTTTTTTTTTTTCCGAGACAGAGTCTTGCTCTGTTGCCAGGCTGGAGTGCAAGC  
GTGCAATCTCGGCTCACTGCAACCTCCGCTCCTAGGTCCAAGAGATTCTCATGCCTCAGCCTCCCAAATAGCTGGGAT  
TACAGCATGTGCCACCATGCCAGCTAATTTTTGTATTTTAAAGAAACGGTTTTTCATTGTGTTGGCCAGTTTGGTCTC  
AAATTCCTGACCTCAGGTGATTGGCCCAACTTGGCCTCCCAAAGTGCTGGGATTACAAGTGAGCCACTGCACTGGCC  
CAGTTATCCATAGATTGACTATAAGGCTAGGTATTGAGTTGGCGGATGCATACTTTCTTAATTTCTTTAGATAATAGGTC  
AATAGTGTGGTAGTGAATCTTGATGGTAAGTGCTCTTCGCATGTTTCACTGCACAGTAGACTAGACTGAAAGTCCCA  
GGAGACTGTGAGTGAGCAAGAATGAATCTTGATCCCCAGATACACAAAGACCATGTCTTCACTGGACCCACAGAAC  
CTAGCACATGGTGTGCTTATTAAATGCTTGTAGAATAATTAATAAATTAACATTCAGAAAACAGTCTATAAGTCTTAA  
AGTTTACCTTTCAATTATGTAATTATCTTTTAAATTTATAATTTATTAACAGACATAGATTTCAACACCTGCAAA  
AGAGTTTATTTCAACTTCTTTTTTTTTTGTCTCATCTAAAAAGTGTGGATTAAATATAGCAAAGTTTGTCTTGAATGGA  
ATCTTTTAGAGTGATATGCGCTTTTGAAAAAATGGTTTATGATTTTGTATGTAATACTGTTATATAAGTTATTTTA  
GAAATGCAATGATTATTATAATATCAGCAGTGAATTTAAACATTACACAAATGCCTGAATATAAAGAAATAGGATCAC  
CTGTGTCGAAGTTAATTGCTTCTTTTGTCTGATTTCTTACCATCAATACCTACATAATCTAAGGCCAAGATACATAT  
GGAGCAATCTATGGACAGGCAATAGCATCCCATGGGAGCTTTGGAATTCAGGAGCTCGAGCCTCACCAGATGTACT  
GAATCAGAATCTTTATGTTAGCATGGTCTCCAGGTGATTGTAGGTCCATCAATGTTTGAAGAGCACCTGTCTGGCCTT  
CAGTTGCCTTTATACATCTTCTTACCAACAGTACCATCTAGTCCAATATTTTTCTGTCTGTTAGTTTGTCCATAGTCT  
CCCAACAGGCTTCTGTCCACAAAGTGTTATTTAGAGGCATGGCCCCATCCCTCTCATAGTCTTTGCTAAGGTTATGTC

Fig. 6.180



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TTTACATTGGAGATACACCAATTGCAGAGGAGGGTGAATTTAGCCTGAGAGCAGGACCATAACAATAACCTGATTCT  
AATGGAGGCTGTTACCAGGGCAGCCAGTACCCGAACCTAAGTCATCTCTGCTGGAAGCATTCCGTTTGGCTGCAGTTC  
AACAAAAAGAAAAAGAACGCACTCCAGAAAAATCAGGAAGGTTTGCATTATCTATCAGCTATGTTCAAGGAGATGTTTG  
TGGAAAGTCGAGTTAAGGGTTCCTGGAACATTAATCTCTGGACATGCTGGAGGATGCAGGTGGATTTAGAGCCAGGCG  
AGTCTACATTCACAAATCACATTAACATATTAAGACGGAGAGCTCTTACTCTGAGGAGCCCCATTTAGTTGTATTCA  
ACCCAGCTCCATATATTTTAAATCACAAATGCTTTTTTTTTTTTCGTGAAACATTCAATAAATAGGCAAAATC  
ATCTTCGGTGAGACATGCTTTGTGAAATGTGAGTGAGAGGTTCCCTCTGAAATTGTCTAAAAGGTAACTTAAGCCCTGA  
TGTTTGTAGAAAATTTGACTTATTATGTAACAGTGAATATACCTATCTGTGTAGTTTCACTATTTAGAAAGTAAACAAT  
GCTTTGATTTCAATATTAATTAACCTTAGGCATTGCTCTCCCACTCCATCTCCCAAGCTGTGACTCAGATATCAGAAC  
AAATTTTTTACCTAGTTAGGGAAGGTTTCCCAAGTTTCAGAGCCATAAAAGCATCAGTAAAGCACCTATTTATTGT  
AGCACTCTCTGTTTTTCATCTTCAATTTCTTAAACATTGAATATCTTGTGTTTTTCAATTTTCTTCTAAAAGCATTTGTG  
GTATATAATAACACCCGATGAAAGTGAAGAGACTATATTGGCTCAGGATGCACTTGATATTTGTTTTCTTAAATGAC  
AAATGAAACTCCCAATTCACACTAGGATAAGATTTTTTTTAAAGTTATTAACCTTAGTTAAGTTATATGACTTCATAC  
TGGGAAAGTGAGTTCCAGAGAAGTTTAAATGAATCTGTTGAAGGTGACTTTGCTAATTATTACAAAATGGGGAATACAA  
CTCTGTTTTCCCTTAATGCCTTTTGTAAAGCATCCAGATAAAAATCTAGGTTTCAGAAAGATTCCCTATAGATTAGGTATG  
AAAAATGTTATTTCTGAAAATATGATTTCCCTTATGAGAAACCATTTGTTTAGATATGTTTAACTTTAGAAAAATTTCC  
AACTATAATTAATCTATGAATTATAGACATGTTCACTGAAATACACTGTCTCATAGAAACCATATTCAAAAAACAGA  
ATGACTGGAACAGATGTTATGTATGGGGATTAGAGGGAAGTTATCCAGTTATATTATACTAATTTGAGAAAGATTCCAA  
AAAAATCCTTTCTTGGGGGCCGCTCAGGGGTGGGTATAGCAAAATGAAAGAGAAAGATAAGGAAATGTGTTTCTTGTGT  
TGAGTTTGAATAGATCACTATTGTGTTATATTCTCTGAATTTAGGATACCTGTTGGATTTTGTTCCTTATCATGTCT  
GTTATGTGGAACAAGACAACAAACGTTTGTCTTCTGTCAATTTTATTATGCACAAGGATTCTGAAGGTCCACCCAA  
GATCTTTCTGTCACATAAATGTCTGGTGTGTTTGTAAATGAACAATTTTGGGGAGTTTGAATACTTTGATTATGAC  
CTTGAGGATTAGAGATCATTTGGTGTGGATGACTTCGAGGAAGTTATTTAATTTTTTTTTTGTATGTGAGTTTCTCAG  
ATTTAAATGTGGGTAATAGTAACACCTTGTGTAATGATTGTAATGATCAAAACATGTAATAATGCAAAGTGCTTAT  
GCTTAGTGCACTAGTGTGTTTGCATTTACATCTAGTTATTTTCTCAGTAATTCATAGGCTAAGGGATGATCTAGTA  
CAGATTGAGATATGGGATTTTTGTTGTTGTTGTTGTTGACAAAGTTGCAGACAAAATGTTTGGTTATTCTCTCACTGAA  
ATAAAACCCAGAAATATAGGGTATTATAATATGTTAAACATTTAGTGGCTATCAAACTTATTTCTTCTTGAAGTCA  
GAGTAATATTAGAGAGGGCATTCTGGGGTTTCTTTTAGCAAAAATAATTAGAAGTAATTTCCCTTAGAATTTTAGAA  
TGACTATATTAGGAGGAAAGGGAAGGTTCTTACCTAAATGTATTGCAACTTTTCTGAAATAAAATCAAGCATATGCTGT  
GTTAAATGCTGGTATAGGCCAGGCACAGTGGCTCATACCTGTAATCCAGCACTTTGGTAGGCCGAGGTGGGAGGAT  
CACTTGAGGTGAGGAGTTTGAACAAGTCTGACCAATGTGGTGAACCCCTGTCTCTACTAAAAACACGAAATTAGCCC  
GGCATGGTGGTGTGCTGTAATCCAGCTACTCACTACTCAGGAGGCTGAGGCAGGAGATCACTTGAACCCAGAAG  
GTGGAGGTTGCAGTGAGCTGAGATGGCACCCTGCACTCCAGCCTGGACAACAAAGCCGAGCTGTGTCTCAGAAAAAAA  
AAAAAAGAAAAAGAAAAAATGCCATTGTAAGTTGTGCCCTATAAAATGTTAACGTTTCTTTCAAGTGAAATAA  
TGACTTACTATTTAGCAGAGATCACTCTAACATTTAGTTTAAATCTAGGAAAAAACCCATATAACTAGATTTGGTC  
TTTTTATAAATGAATTGATCTTAGAAGAGCACATCATATGCTCAAAATATAGCTGTCTGTAATCAAGCATATAT  
TTGTTTTGTTCAATGAAATCTAGAACTCTTAAAAAAGTGTACTGGCTTTGATGTTTAAATGGGTGGAATGTATA  
AGAAATATCTGATGAATTTTTGACTTCTCTATTGACTTCCAAGCTTATATACAGCCAATGAACAACTTTTCTAAGTCT  
TGTAATCTCTTTCCATTTCTACACAAATTCATATTGAATAGGAAATATTGAAATAAGATCTTTAGAATCCTCCTCTTGC  
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TTACTGATTTTCCATAGTAAAAAGTCTAAAAATCCAATGCATCTTACCTCCCTAACTACCTATCTCTCCAAACCTC  
TCATTATCTCCATATGTACCTTCTTTCAAGACTTAATTCAGCCCTGCCTTGTGTTTGGAGTTATTCTCTGTCTAGAT  
AAATTATTGGTCACTCCTTTTAAACCCAGAGCCACCATCAATTTCTATTATTAATTTGATTTCTTAGTATTATTTCTT  
TGTTGGGAGTTTATTTATATTCCCTCTAAAGTAGATATTTTACTTTTGGAAATCTCTGCCTACTAGCCAGTACC  
TAATAAAGGTCAATGATGATGATGATTGAAAAACCATGTTCTACAGTGTTGAGATGTGCTTTTAGATAAGGGGATGA  
TATACTTTATCATCAAACTTTATAATGAAAAATAATCATGATGAAAAATTAAGATAAAATAATTTTAGAATATATTAT  
TTGGCTAAGTGAAAAACTATCATGGAGTTTAATTAATTTCTTATATTGAAAGAAGACAGGTATATAGAGGAGAAAA  
AAACATAAAAAACAAAAACATCTCAGGAATTCACCTTCAGCTGCCCTTACTTCAATACCATGCCTCAGAAAGAACTTC  
ATGACTTGGCAGGTTTACAGGTTGACTCAGTGATATGCTGAGAAATAGCCAAGGGCAAAATTTAGTGTAACTAGATCA  
AGAATCAGGGGACCCAGGTGTCTACTGTTTTCCATAGAAATAACCAATAAACAATTTTAAATACATAGATCTGCTTTCT  
TTTGGGTTGTATAATGTAGAGTCAAAATAGAGGCTCTGGCACCTCATAGACACAGATTTAAATCCCATTTATGCCATT  
GGTAACTATATGACCTCTGGCAAGTTATTTAACCTCCTTATGCCCTCATCTCTAAATTTGTAGTACGAAAGCAACACC  
CTAAGTATGATTGCAAGGATTAAGGGAAATAAAATGCAAAGTTCTGTTACATAATTGATATCTACTAAGTGTGAATTT  
CTCTAAGTTCTCATATCACATAATGGTAGATTTTTATTACTGGGTGGTTATTCTGTACCAGGCACCTCTCTAAACAC  
TTATATCATGGGATTAACACATTTAATCCTTGTAGCATTTTTCGAATAGCTACTATCATCATCTCCTCATTATTA  
TCGTCCTATTTTCAGATCTGGAAGTGAAGTAAAGTAACTAAGTAACTAGTAACTAGTAACTTCTGGGGTTC  
AAATAAATTTTCAATTTCTAAATTAACCCATCACTTCTTATCCAGTAGACAAACATAACCTATCCCATCAGGTCA  
TTTCCATGGCCTATATCTGTGGACAATTTGAAAGCGATTTCTTTTAAACCTTGTATTCTAATTAGAACATAGTTTG  
GAGAAACATACAATGTTTTCCATAGCTGAGTATAATCATTTTCTTCCATCCTTTTGAATTAGCCACATCATTTGCTCTC  
TTTCCATTGTGGAAATCTAGCCTTGCTTGTGTTGTACCTAGACAAAAGCACACTTTTGTGTGCAACCTGTGAAATTT

Fig. 6: [2]

[illegible]

Fig. 6.182

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TAGTTTGGCTCTGTTTTCTGCATGATCCCCACTTGGACAGAGACACATACAGTGTGTGTGTAATGGTGGTGTGTCTTCAT  
AAAGCCCTTCTCCTCCTGACTTTGATATACAGTATTCATAATCTTAAACATGCCTTTCCAAAGGAAAGAAGAAAGGG  
ATTAGGAATTCTACGCAGAAAGTTGCAGGCTGGTACTTGGTAGTATTGTTGTGTTCTTTGAATTTGGATTGTTAGAACA  
TTTTGCCAATCTTTTTATTTCTTTGTGAATATTTTTATCTTTTATAATGGGTGAATTTGTTTCATGCATATGCTTC  
CATGTATTTTTCTGGAGGATTCCTCATCTTTCTGCTCTTGGAAAAAAGAAAGAAAAACCCAAATATTAAAAAC  
AGACCATCATGTGAGCTTATTTGGAGTATTTGGAGTTCTGCCTGAGTAGAGGCCATTCCAACTCTGATCAGTGAGTC  
CAAGTACTAGGGTCTATGTTACACACTTAGATAATTTCAAGGTAGTAGTGGTTCTATACATTACATCTACATTTTGATA  
AGATGAGTATAAATTATGATAAAGAAAAACATAACAAAAAGAAATGAGTGTGTTAGTTGAGAACTGTATGACTAAATAA  
TTTTTTACAGTTTTTGCCTAACTAACTAAACAGTATGTACGTTAGCAATGGGAGGGAAAAAAGCAGAAACAAGGCT  
TTTAGGAGGAAAGCAGCAAAAAGTAAAGGAATTAACCTAAACCAGTGACAAGACCGTGCTCAGGAATGCATTGATG  
TTATAGATGAAAGTCAATGACAAAGGAAATAAAGCCATGTACACCCAAAGACATGACCAACCTCAAAAATTTGGTTT  
TAAGTAGCTAGATCTCTGACTGGGAAAGTGTATTGTCCCCAGGATTTTAAACACCTAGATGGCATTCTGAGTTTGGTA  
GATGTAATGGCCATAAGAGGAGTGAGACAAACATTGACTTTTTCTGTCTTAAAGCAGTTATTGGGAAATGATGGCTTCT  
CTTTGAGGAAGATTTCTTTTTGGAATAATTTGTGAGCAACAAACAGTGAATAAAGAAAGGCTGAATAAACACTAGGG  
AGATGCACTGAAGGAGAAGGTTGGCTCAAGGCCAGGCATCGGGTGCAGAGCAGGAGAGTGGCATGAGTTCTTACGGA  
GCCAGGACCAGAAATTTCCGTGTCCAGTGTCCCTTTTGTGTTGCGTGTCTTATCACTGCAGTTTCTAAATTGCAACCCATT  
GCTGAATGAGTGGCCCTCAACTCAGCTGTTGATTTCAGTCTGAGTGGAGCAACCTAGAGTTTCACTGGAGGTTATCTG  
AACTATTTAGACATGTCCGGATGTAAGGAAGGCAGGAATCCCATGAAAAATAGGCTTTCTTCTGACATTTCTGGCACTT  
CCTTTCTGGTGTCTTTGGAATAATTTCTATGAGCACAATTTCTATCAATATTTTCAATTTAGTGTATCAGGTACAGCC  
CAGTAAGAAAAGCATAAAGAGAGCAATGGAACAGAAAATAAAATCATGGTATCGATTTTCACTAAGTACAGAAAG  
CAGTTTCCCCTATGGACTAAAACATATCAGGCAAGGGAGTTGGAAGAGTATCTCAAGTTTCCATATTTGGTTGAATGAG  
CCCCAAGACGTTTCATAATATCCACAGGCATCTTTTGCAAAAATCTCATTTGTGCTTTCAGATTTGTGCTAGCACTA  
TGGAGAATTTTGAAAAATATGTTTCAATTTGTTCTGACATAAATAAATATATTTGTATCTAATTTGTTGCTAGTACAG  
TGTTCTGCCTCACAGTTTCTGCTCCTGGTATTCCCTCCATTGCTATGCATACACTTAATACCTACTGAGTCTAACA  
TGTTTATTCTGTACCTAATTATTACAAAGTTGAGCAAGAACCATTTGTTGGTTTCCAATAATTTATACCATGGTAGAAT  
AAATCAATAATATTGGAAGACATCTGTTTAGCTAAGATAATCTTGCTGTCTTACAAAATAGTCTCCAAATCTCATTGG  
ATTGACACAGTGAATTTTTATTCTTCTGCTTTTGTGGGGAGGCAGCCTGCCCTAGCCACTGGGTGCCTCAGGG  
ACCTGGAATTTTACCATCCTGTGGTTCCATTATTTGCAACATGTGATTCCCAAGTTGCCAGGCTCAGATGAATCAGGA  
GAAAGACCATGAAAGAGGATGGTATGTGTGAATTTTATGAGACAGCCGGGAAGTGCATGTCACTTACTCTGTTT  
TCTTCTGGCTGGAACTCAGTTCTATGGCCACATCTTATGCAAGGAGGCTGGGAAACATAGTCTGTTCCAGGCAATA  
AAGTAAAGTGCTGGTGGCTAATCTATCTTGGTTATATAGTATGTTAAGGGCTATCTGATTTACCCTCTATGCCATGGTT  
GAATTTCTAGAATAACATCTGTAATAACATATGCCATTGTTGAATTTCTAGAATAACATCTGTAATAACAAGTCTTTGA  
ACCTCTCGTCAAACCTCCTTGATGAAGATTATACAGAAGCACTTCTGTTGTTGATAGGCTGTTGATTGGAAGACCT  
TGCTTCTAAACAGTAGAAGTCTCCTTCCCTGCAACTATCATCCATGGATCCAAGATCTGCTTTGGGAATCCTACAACCT  
GAATTTTGTCTCCCTTCCATTATGAAGCCCTAAGGCAAGTGGCTTGGAGTAACCCACCAGAGAACCAGGGCCCTATTCA  
TTCATTTTGGTATACCCATGCTTGGCATGATGGCTGGTCAATGGTGGAGCTTAATAAATGTCTGCTTAACAAATTCAT  
TAATCAATTTTTTAGTGTTCTCATGCTCTTAAAAAAGACTTCTCTTGGGCTAAGCATGGTGGCTCATGCTATAATCCT  
AGCACTTTGGGAGGCTGAGGAGGGCGGAGTCCCTGAGCTCAGGAGTTTGAAGACAGCCTGGGCAACATGGCGAAACACC  
GTCTCTACTAAAAATACAAAAAATTAGCCAGGCATGGTGTATGTGTGCTGTAATCCAGCTCCACAGGAGGCTGAGGCA  
CGAGAATCACTTGAACCTCAGGAGGCGGAGGTTGCAGTGAGCCATGATGTGCCACTGCACTCCAGCCTGGGTGACAGAG  
CAAGACTCTGTACCAAAAAAAGGGAGTCTCTTTTCTTAAAGTAAACATCCTGTTATTTTCAATTTCT  
TATATGCTATATTTACCAGGTAGTTTTATCTAGACTTCTCTTGGGTTTTCATGATCCATTTAAAGAAAGTACTGAA  
TTGACAGCATACTCTAGGTGCTATGTCACTCAGCACCAGAGCAGTTAGAAAAGAGACTAAACCTTAAATTTCTTATG  
ATTTAGTAATTTGTGTGACTTTGGTCAAGTTACTTAAAGTGTGCTTCAAGTTTCCCCGTTAGTCAGTTTTCTGGGAATAGT  
ATCTATTGGGGTTTGTGGTTTAAATTAAGTACAATTATGTATAAATTAAGTGGTTTTCAGAGGCTGGACCCCTTAGTGGGT  
GTCATTATAAGCTAGTATTTTTTTTATTATGTACTCTGTGCCATTATTCAGCCTTGGTCTGCATGAACCTTTAGGAT  
CATGTTTAAATTTCTAGATGATTACTCTGTCACTTGTGATGAATTAGAGTGAAGAGACAAGAGTTGAAAGAAAC  
GAGTGTATGTCAAGTTTATTACTGTAGGAAAGGAGAAGGCAGAAATGAGAGATACTACTGAGGCAGAACTGTGGGGTTT  
GGTGTCTCTCTCTGCCCCACTGCAAAAATACATCTTCAAATTCCTGGTTTCTTAAAGGTTCTCCAGTTCTCCAA  
CTGGAAGTAAATCCGTTCCCTTCAAGGAACAGATTTCTATTGCGCCTCTTGTCTCTGATACTCTCAATGCTTATTAG  
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TGCTCTGCTTTTCACTAATCTGTTTGAAGTGTCTTTACTAAACATGCAATGCCTTGTAGTTCTAGTGATTATAGACATG  
ATTGAGATTTTCTGTTAGGGGATTCCCTCTATCATCAGCAGGAACACAAAGTCAATGGAATCTCTGGTGAAGAAAA  
CTTAACCTCCAGTACTAGTTTATTTTCAAGAAATGAAATCAGGAAGTTCTTACATTTCTTCAAGGCTTTCTCGTCATT  
GAATTTTAAAGCACAGTTTGGGGTGTAAAGGCCTAAATAAGTTTGAAGAACAAAGGTAGAAATGCTGGTTTTCAGTCTT  
TGGGAACCTTAAAGTTGCTGTTTGTAGTCATATTTAAGTCATAAAACCTGTTATCTTCAATATTTTAAAAAGTAAT  
TAGCATTATAATCACTTAAAGTTATAATTTTTCATATTTTATAATACATCTATATATCCAGACTCAGATTTTCTT  
TTATTTTATTTTATTTATTTATTTTAAAGTTTGGGTACATGTGCACAATGTGCAGGTTAGTTACATATGTATA  
CATGTGCCATGCTGGTGTGCTGCACCCATTAACTCGTCATTAGCATTAGGTATATCTCTAAAGCTATCCCTACCCGC  
TCCCTGACCCAGACTCAGATTTTTTAAATGCCAAAATTTGTCAATTGTTGCATCAGTTCTTTTATTTTAAAGAA

Fig. 6. 183

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TAAATGTTACAGATAATGTCTAAAGCTGTCACCCATCCTATTCTTCTTCCTTCGCAGAGGATCCTGAAATCAGTGTGT  
TCTTCCTTGAATGTCATTGTCTTTTAACTTCATATGTATGTGTCTGTTTGTGTGTTTACCATTTTATATATAGAGATG  
GTACATGTATATATATCTCCATAATATGCCATACTATAAAATGAGAAAGAGCAAGCTATATATATATATATATATAT  
ATATATATATATATATCCTTAAGCAGTTTGCTCTTTTTTAGTACATAGTATAGGAATAGAGTTGTGAATATATATATAA  
AATATGTGTGTATATATACATATATATGCATATATGTACCTATATACATATATATATATATACCTATATGAACCTATA  
TACATATATACACATATATGAACCTATATACACATATACACATATAYGTACCTATATACACATATACACATATGTGTACCC  
ATATACACATATACACATATGTACCTATATACACATATACACATATGTGTACCCATATACACATATACACATATGTGT  
CCCATATACACATATACACATATGTGTACCCATATACACATATACACATATGTGTACCCATATACACATATACACATAT  
GTGTACCCATATACACATATACACATATGTGTACCCATATACACATATACACATATGTGTACCCATATACACATATACA  
CATGTGTACCCATATACACATATACACATGTGTACCCATATACACATATACACATGTGTACCCATATACACATATATGC  
ATATGTGTACCCATATACGCATATGTGTACCCATATACGCATATGTGTACCCATATACGCATATGTGTACCCATATACA  
CATATACGCATATGTGTACCCATATACACATATACGCATATGTGTACCCATATACACATATACGCATATGTGTACCCAT  
ATACATATATATACCTGTGTACCTATATATACACATATACACATATATATATCTATATACCTACATATATATACACACA  
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CCTACTTATATACAAAAGTTAACTATAAAACAGCCTCAGGTAGGTCCCTCAGGAGGTATCTAGAAGAGGGCATTGTCT  
CATAGGAGATGACAGCTCCATGTTATTGCCCCAGAGAGCTTCCAGTGGGACAAGATATGGAGGAGGAAGATAAT  
GATACTGATGATCCTGCTTGTGTAAAGCCTAGGCTAATGTGTGTTTGTGTCTTAGTTTCTAACAAAAATTTTAGAGG  
GTAAAAACAAATTAATAAATAAAGCTTATAGAATAAAGATATAGAGAAAATTTTTGTGTCAGCTGTATAATTTGTAGTG  
TTTCAAGTTAAGTGTTATTACAAAAGAGCCAAAAAATTAAGAGAAAATTAAGAGTTGTATAAAGTAAAAAGTTACAGTA  
ACCAAAATTAACCTTATATCAAAAGAAATAAATAATTTTATAAATTAAGTGAGCCTAAGTGACAGTGTTTATAAAGTCT  
ATAGTAGTGTGTGGAATGTCCAGGCCCTTACATTGACTCACCCTCACTCACTGAGTCACCCAGAGCAACTTTTCAGT  
CCTGTAAGCTGCATTTCGTGGTCAGTGCCCCATACAGGTATATCATTTTTTATCTTTTATCTTTTATCTGTATTTTTAAGTGTACC  
TTTTCTAGTTTATAGATATACAAATACTTAACCATTTGTGTTATGATTGCCCAATAGTCAGTAGAATAACATGCTGTAC  
AGGTTTGTAGGCTAGGAGCAATAGGCTATACCATCTAGGTTTGTGTAAGTACACTCTAACATGCTGACAAATGATGAA  
ATTGCCTAATGACACATTTCTCAGAACTTAGAATAAGCAATGCACAACCTCTGTGTCAATTTGCCTCTAAAAACCCAGCT  
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TATAATTTTTATAATTTCTGTATACACATATGTATTTTAAATTAACATATCCAACAGTAGAAGAAGTACTTAGTAAC  
AATCTTAACAACAAAAATAATTTCTTTAGGTGGACTTTCAAAAGGCCCTTTAGGAGACTTTTAAATAATCTTAAATGTGT  
TTAGGAAGCTAAATAAGTGATTTTGGCCATATTTTTTGTGTTACTATAAATTTCTTTTATCAGGCATTGGCATTAGATG  
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GTTAAGAGAAATATAAATTTGCAAGTCATAGAAGGGGAAAGAAACCATTTGTACCTATAAAGAGAAATACAGCCACT  
TAGAGTTTGTAGAGTAAATAACATATACACACAAACCACTGAGTAGATTTTCAAGCCATTATTTAGTGATTTTCT  
TCTTTGAGGTCTCTTTCTCCTCTCCATCTCTTACTTCTGCTGCTTAGCTTACTGCTTACTGCTTACTGCTTACTGCT  
CTTATGGTAATAATACCCGAGAGAGCATTGCTGCCAGTCTCCTGGGAACCTAGGAACCCAGAGGAGGCTGTAGGCA  
AGTGTAATACCAGAAGGTGGGGAGCAAGTTTCTGGGGGAAATCATCTGAGAAGCACACCAGGAAGTGCTGCTGGAATGT  
TTGGGGGAAGACCAGTCAGCCCTAACCTTCAGCCATGCTGTGGCATAACTGGCTGTTGCCCTCTGTGGAAATCATGGGA  
GGTGGAGGCGCTGCAAGTTGAGGGTGTCTGTACCATTTGAAAGGCATAGTTGGCTTTCCACGAAATCAAAAGACCTGAG  
GAAGATTTTCTTTTAAAGAACATGCCGATTGGCTTGTGATGTTTAAAGGAATTACAGGGATTACATTATGACAATTGGC  
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GACATGGTCTTTCTTGCAACTTTGGCAGAAATGTTGATAAGAAGAAAAATAAAACCTTGAATCTTAAAGTTTCATTAAAT  
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GAAGAAGCTTTACTATCTCTAATGTAGCAAAATATGTCTTTTTTTTAAATGGTTTTGCTTTTTTAAAAAATCATGTTTTT  
AAAGCTGCGATTCAATTCAGTATATTGAAATCACATATTTCCAGGTCTTCTGGTCATTGATACCTTAGCTTATTC  
AACCTTTTTTGAGCTGGAGACTCTATTAATAAGTCATATGTTTATAAAGGCATTTGGCATTACAAAGTAAAAAGTAATGA  
CTAATTAATTTTACAAAGTGATAACAACTACAGTCTAATTAAGATTAGCAATTAGAACAAGTTCCAACCTTGCTGCTG  
TAAGAAAGTAAGGTAGATGCTACATGGGTAAAAACAGGAACAGAATTATTTAATAATTTCTGTGACTCAATAATAGGAT  
TCAGGGCCTTCAGAATGAAGGTATTGGTGGTATTACGTTAGGCCACCCTGAAAGGCATAATTTTAGGTAACAGATA  
GGGAAATGTATAGATCACTGTAAAGATTCTAATTTAAATTTCTTTTACTAGACTTCAATTTTATACCATCTTAACAC  
ATCAGTCTCTTCTACTGTAAATAAGCAAAACAGAAAAATCATTTTATGTGCAGTTTAAAGACATAAATACTCTCCAAG  
TATTTTCAGATGAGGCATTATTCTCAAAAGGAGATCTTGAAAAGTTGATCTGAGAAGAAATTACATGATTTTCATTTTGG

Fig. 6.187

[illegible]

Fig. 6.1185

[illegible]

Fig. 6.1186



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TTCTAAGATGGTGTGCTCCGCAGGCAGCCTTGCTTTACACTGGCTGTTGGCAGAAGACTTCAGTTCCTCACTGTTTGTG  
CTTCTCCAAAGGGCTGGGTGTTCTTTTTTTTGTGTTGTTTAAATACTTTAAGTTCTAGGGAACATGTGCACAGCGTGC  
AGGTTTGTGTACATATGTATACATGTGCCATGTTGGTGTGCTGCACCCATTATTAAGTTCATTTACATTAGGTATATC  
TCCTAATGCTATCCCTCTCCCCTCCCCCACCACCAATAGGCCCGGTGTGTGATGCCCCCTTCTGTGTCCAAGTG  
TTCTCATTTGTTCAATTTCCACCTACAAGTGAGAACATGTGATATTTGGTTTTTTGTCTTGGCAGATAGTTTGTGAGAAT  
GATGGTTTTCCAGCTTCATCCATGTCCCTACAAAGCAGTGAACCTCATCCTTTTTTATGGCTGCATAGTATTTTCATGGTG  
TATATGTGCCACATTTTCTTAATCCAGTCTATCATTTGTTGGACATTTGGGTTGGTTCCAAGTCTTTGCTATTGTGAATA  
GTGCTGCAATAAACATACATAGTGCATGTGTCTTTATAGCAGCATGATTTATAATCCTTTGGGTATGTACCCAGTAATGG  
GATGGCTGGGTGTTCTACCTCAGGCACAGGAGTCAGTGATTCAAGAGAGTGCAAAGTAGAAGCCACAACGACTTTTAT  
GACCCAGACTTGGCAGCAACACACTATTACTCTGCCATATTCTTCTGCTCACATGTGCCAACCCCTGGTACAGTGTGAGA  
GAGGACTACTCAAAGTTGTGAGTATCTGGAGGTGAAGGCCTCCTTATAAAGGACTAAGTCAAGTGGATTCAAGAGATG  
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AGATATGGGCAAAGGGTGTGTTGTCAATTGTATTATGTTTGTGTGGTTTTGAGAAAGAACAGCAGAAAGGGGACATTT  
GATCATGAGAACTGGGGACAATTGCAGGAGCAATATTCTTGAGGAGGCTTTGGGGGAATAGGGGTAAAGGAGAAGTTCA  
GATAGTGCACAAGCCAAAGGAGTTGCCCTTAATGGAGTGTCTTGATTGTTTCAGTCCCTACAATAAATGAGAAAGAGATG  
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CTATTTTGTGATAAAATAATAAGCTCATCAATGTAAAGACAGAGAACAGATGTTGGAGGTTTGGAGAGAGAGAAGGTGA  
GAAATGATCCATCATCTCTGGGAGGAGAGAGTGTCTTGTCTAGAGAAATGTGAAATTCAGACCGGCACTAAGGAGCCA  
CCTCAGGCCAGTAGTTACAAATTCAAAGTCATCATGGTTGTGTTTTTCTCAACTATCATTGACTGCTTAGGCCACAAC  
AAGCAGCGTTTTGAAAAAGGTTGGTTTAAACAGAGATGAGATATTTCAAGTGAAGTCTGAGTTTTAAAGGATATGCAAAGA  
AGTGATTATGCTGCCATATTTACTCTAAGCTCACTAAGGAAAGGGGACATAAGTTTGGTGAAGGTGAGAACTTCT  
AAGGTCAATGCACTGGAGGACTCATTTGGGTTTTGGAAGATTTTTGGAGTCAAGATACTGAGGGGATGAGAAAGAG  
AGAAGGTAGGAGAGAGACGCTTAACAGTGGTTATGGGGCACCGTTATCTGTCTGTCAGGCAAGGCCTTGCTTATGGTAAGGAA  
AGGAGGTTTTCAGGTAAGATTATCTGAAGGGAGATCCAGAACTGGGAGACCGTGGGAGGAAAAGATAATTATGAGTTAT  
GTAAGAGTTTTGCGCTGGAGAGAGACAGGGCTAAATGTTTAAAGACTGAGAGGAGAGACCTTTAGGTCAGTAGAAAAC  
GGATTAGGAGGGGAGCAGATTAATGATGTGAGTTACAAAGACATTTTAGGGCAAGGAAGAGATCATGGTCTGGAAGCAG  
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GCTGAAGATACAGGAGCATAAGGAGATTTTGGCTAGATATGAGAACTGAAACGCTAGGAGTCAAGTGGCGAGTTTGAGGAA  
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TTGTGTGGTGACGGTTGTGTATTCAAGACAAGGACCTTGGTTTTAAGACCATGTAGTCAGACAAGCACAACCTCCTCTG  
CTGGGATGGCCGTTTCTTTGGTCTATTTAATTAGTTCAGAAACAGTAATTCATCCTCACTGCATTTATAGAAATTGA  
GGGAGAGGTTGGTGGGTACCAGACTGGCCAGGTCTGCCAGTCACTTCACTTCAACATTCCTGTCTGGTAAAGTCATA  
TTATTCTCACATCTTGGCCGTGTGTGTATGCTCCAAGAATGAGACAGATGACAGAAGATACAGAAAAACAATTGGGAAA  
TTGCTAGTTTGCAGATGTATAGCCCTGGCAGAGATTTCTAATATGAAATTGCCATTTTTTCCATGATTTGGACACAAA  
ATCCTGTTCTTGAATATGATGTTTACGCTAGATATGAGAACTGAAATAATTTTTTGAAAAAATATATATATTGCAAT  
TGTCACAACAGTTTATACACATAATTATCAATGATATTGCTTTTCTTAAATAAATAGGTTTTATGTGTTGGCATGAA  
ATACTTTTACAAGATGATGCCAGGTTTTAACATTTATACAGGAATATTTTCAATTATCATAATTGTTAATAAAACAATA  
TGAAATGTATAGCTTTCTCTTTGGAGTTTGAATTGTTGGTTCTTACTGCCTGCTTGCATATTTATATTAGTTGTACTGG  
CTGGCAGTTATTAGGAAATACGATCTTCTGTGTCTTAGGAGTGCSCCTGCAAGCAACATGTGCAACATTTTTTTCTT  
TCTTTCTTTTTTTTTGCCCCTAAGGAAAAGGGTAAGCTCTGGCACCTTTTAACTGTAAGGATTATGTGGCTCTTGCTGT  
GATTGATTGGTTGGCTTCTCCTCAAGAAATGCTCTGCTGGTATTTTATGTTCTCAGAGCCAGGGCTTTGCTGATC  
AGCAGTCAACCCCTGTCAAGACGTGGGCTTGTCTTGTGCTATTTGCTCTTGCAGCCTGGGAAGCATATTTCAACACACT  
GTCCAGAATTGGCTAGAACATGCTGTCACTCCAGCTGACTCTGATGACGCTCTTGCCAACGTAGATTTACATCAACA  
CAGTTCTTTACTGGAAAAAGCTCATTGAGAATATACAGGGTGGCCCATTTAAAGAGGCATAGCGTCAATTTGAAGAGA  
AATATATTTTTAAAGGGAGAAGCTTAAGAAATACACAGTCAATTGAAGGCTCCATGGAGCATAGAATTATAACTAGCATC  
ACCCGAGAATTTTTCCCCTGGAGATTGTCTTAAGCTCTAAGCTCTAGAGACTGGCTTATCCTGAAAAGAGAACCTTTCT  
GTTCTAGACTTTTTCTTTCAGCATGCTAGATATGTAGGCATTTTTAGCCTCTTCTTTCCCTAACCATATAATCTGAACA  
CCATATTCATTGAAGAAAGCATGAGATGTGAAAGCTGATAAGATGCAGGATTATGTGACACCATTTGCTTTTACCTGTG  
CAAAATTCAGTTTGGTAATCAATGGAAATACAGATTTTACCCTTACATAAAATTTGTTGGCATATGTCCATCTTGT  
TTTGACTCATCTTGATATCACAATGAATGTTTGGGATAGGCATATTACTCAGATGTGTGGGTCTATAGACAGGAAATC  
AGGCATTGAGAAATAAGCTTGTATACATAGCTATCCAGGAAAAAATAACAACACTGTCTTTGCTGTACAAAAGAAAA  
TTCAATACTACTGTACATGATATGTGATTACTATTATTATGACCAATGCTACTCACCTTTCATTTTCATCATTCTAG  
TCTATTTTCAAGTCATTACAGTAATGGATACAACGAAATGGGTTTTGTAATTTTACCCCTTCTCTCATGACAACAGCAGG  
ATTCTCAATGACACATGCTTTGATCTGTCTGCTTTTAAATCTCTTAAAGCAGGGTGGCTCTAGATAGCTTCTCTCAGAA  
GATTTTATGATTCTAATAGACCTCATGATGAGTTCTATATTTGTGCTTGTTTAGATACATCAAAGTCAGGCTTTTACT  
AGGGCCACCTGGAAAGTTAAGGTCACTAGCTTTTGTGTTAGTCAATGGATTACTGTGATGCTCAGCAATAACAAAGTT  
TGACCTTGTAAGTGATCAAAGTTGTGGGTTACAATATAGGAATATTAAAGTATATTCTGCCATGATGTGTCTTCTGT  
TGATGTTTGTCTAGAATTAATATTACAGTCACAATTAAGTCTTAAAGTGTCTTACTGCTTGCATACAGTACAGTGGGA  
AAGAAGAGATGTCAAATCAGAGAAATAAGATTCTCCATTATGAATTAACATACAAATCTACACTTAATGCATCAGA

Fig. 6.187

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ACTAAGATGCAATGTTTTAAAGAGATTGAGTTGACAGGTCAATCAGATGGTAGGACTGGTAAGAATTTGAGCAGGCATA  
AACAATTGGCAGTATGTATTCAAACACTGTTTATGAGAGTGAGGAACCTATTGGTTAAACAAGCTGACATTAAGCATTTAG  
ATTATATAAATCACCTTATTAAGTGCATTCTATCTATGGATCTATTATCGATCTGTATCTATCTATCGATCTGTCTGTC  
ATCTTTTGTGTTGTCTGGTTCCATGCTTCCAAAGACATTTTCTGATCTTCATTGTTACATAGTACTCTCTACTGAGTCC  
TAAAGAACACAGTTCTGTGTGAGGCTGATTGAAGTGAATGATTGAGTGATGATTGTAGTGCTCAATGAAAGGAAATA  
AAGAATATTTGGACTCTGTTTCAGCAGTCATATGGGCTTGACAAATATGAGTCTGCTTTTGAGAGAGAAACTTGCACAA  
ATGTCCTCTTTAAGAGCCTGCTTTTAATTCCTTTGGGATATATATCTAAGTGTGTCTTAAGATAGTTCTATTTTAAATAT  
ATTTTTTTCATACTGTTTTCCATAGTGGTTGCACCATTTTTACAATCCTATCAACAGTGACGAGGGTTCAATTTCTCCAT  
ATTCTTGTCAACACTTACGTGTGTGTGTGTTTACAGTAGCTATCCTAATGGGCATGAAATTATATCTTATTGAGGTT  
TTGATTTGTATCTCTCTATTAGTAATGTTGAGCAGCTTTTCATGTACTTGTGGCCATCTGTATATCATCTTTGAAGAA  
ATGTCGTGTTCAAGTTATGTACTCATTTTTTGGTGGAGTTATTTAATCTTTTGTCTTAAATGTTTGAATAGATCAAG  
GTTTAAACAGTCATTCTCTGTGTGCTTTTATGTCATGTTTAGAAATGTGACTCCATTTTAAAGCTTCTTAAATCTTTTTT  
TACTTTTACCATTTTTTGGGGCTCTCTTTTTTATATTTAACTTTTGTCTATCTGTAATGTGTTTTGATTATGAAGAAT  
AAGGAAAAAATTTAGGGTTTGTGTTTCCAAACCCACTTTATAGAATAATCACTGATCATGTACTAACTTATAAT  
ACTTGATCATTTTAAAGTAGGCTTTGTTATTGAGTTCACATTTGGCACACCTACTGGTGCAATGATTGCTCTAGTATTA  
GTGCAATAGTATCGTGTGATTGTTTGTGTCAGTGTGCTAAGTGGTAAACCTCAGCTATTAATCTACCTTGACTAAATA  
TGTAATTGTTCCCTTTTAAAGCCCTATTTCTTTCAAATAAATAATTAAGTATGTTTCCCACTCATCTTTTTTGGGG  
GAAGAGTAAATATAAAGAAATGTTTCCAGCAATGTGGGAGGCCAATGTGAAAGAACTCTTATATATAGAATGACTA  
TTTTTGCAAATGCAAAATGATAACAGAATTTCCAGATAAGGAATAGCAATGACTGTTTTCAGGGCATACCTAAGTGTGT  
TTCTTGGGCTAAATTTAGAATGCCTGATTACTGCACACCTGGTATGAAAATAGAAAACCTTGTGCCTACATCACATAA  
TGCTTACCACATTGAGGTACAGATAAAAGAAGTTCTAGAAATAGGGTTGTTCAAAGCCTGGTTTACTATATTTGGATA  
TAAAATGGAGTAAATCTCATAATCTTCTGAACATTTGGTTTCTCACTTGCTAAATAGGAATAAATAACATGCATGAAT  
AGTATAGAATGGTTGTCCATGTGTCTAAACATGATAATTTGTGGGGTATGTACTTTATAAATGATTATATGCAAAAAGG  
ATGGCCAGACGCAGTGGCTCAGCCTGTAATCCAGCACTTTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTGAGGAG  
TTTGAGACCAGCCTGACCAACATGTTGAAACCCCGTCTCTACTAAAAGTATAAAAATTCACCAATATGGTAGTGCATG  
CCTGTAATCCCAGCTACTCAGGAGGCTGAGGCAGGAAAATGCTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCCGAGA  
CTGCGCCATTGCCTCCAGCCTGGGCGACAAGAGCAAACTCCATCCACACCTACCTCCCCCAAAAGAAGATGATG  
ATGATGATGATGATGATAATTGATATCAGTAACAACAACAGTAATCTGGTGATAGAAGATCCTTCTGGTGCAAAACCAT  
TCTCAACAATATGTTTGTCTCCAGAGAAGGTAGGGCCAGACTCTCAATCCCAATGTTGTTTAAAGCCCATTCAGATTAT  
GAATTCATTTGAAGCATTTTAGGACCCGAGAGACTACTAGAAGTTTACCGTTAAACTTAGATGACATACAGTTAGAAAA  
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AACGTAATTTTCAAGTTGATTAAAGAGAGAAGAACCTAGATATGTAAATAAAGATGAATCTTTTAGACATGTAGTCAGTAG  
CTTTCATGTTACTAATGAAAAGTTCTTCATATCCTATGATTTGAAAGAGGAAAATCAAGTTTGTGGAAGAAAATACGT  
GAAATTTTAAATAAATATACGGCACTTTATATAGCCAGAGTTAATTTCTCTTTTTCAGTAAATGTATTACCTGAAA  
CACCAAAATGTCAATAGTACAATTATGGTCATATTGAGACACTTGTATTAGACACACCTTTAGATTTTTTCTTTT  
GAATAGAAAAGTGAAGAATTTTTTAAAACTGGGCTTATTTGACTGGACGAAGGGTTTTTAAAGAACAGAAAGCAAGGC  
AGGGCAAATCCTGGTGTATTTACCTGCGTAGTGACATATAGGAAGAAGGGACCTTTTCAGAGATCATCTTGAGTTTGA  
CTAGATGATAAACTGAGGTTTCAGGATGGCACAGAAAAGTGTCCAAGGTCACACATTTAGGAAAATGTGGGACATAGAC  
ACAAATTTGTTTGTATGTAGTTAGTAGTCTTTTTAGTCTGACCCAGAGCCTTTGGGGATGGGACGGAAGGAGATTGGGA  
AGAGCTTGTCTATTGATTGAGTATCTCTGCTCAGTGCCCTCTTGAGGTTTTGTTTGTGTTTGTGTTTTGCTTTCTG  
GTATTTTCTGTTGTTTGTATCTGGATTGAGTACAAAGAGACTAAACCATTTTCCATATTGCATACCTGACTTTGA  
CTTACACTAGGTGCAATGAATGCAAGAAGCAGTTATGTAGAAATGAATTAATAGATAAATTTACTGTAAATCTAGACCT  
TTATTGTTGTTCTCTCTATGCTACTAGTTAGCTGAGTGATCACAGGCCAAATTACTTAAATCCTCATAGGCTCAGTTTCC  
TCTAATTTAAAGGAGAGTGTGGGTAGTTGATCTCTAAAGTCTCTTCAGTGCAAGTGCTGTGCTTGCCCTCTTTA  
CCTGAATAATTCCTAAGATTGCTGAAGCATCATTATCTCTTGTCTTAGCTACTGATTGTATATTTAATTCACAATT  
GGGTTTATCTCTATTTTCATTTCATGCTCTTTGTATCATTAAATCCGAAGTCTCATATAAAATCTTTAATTCAAAAAT  
TGAGTGATGGTACAAGAAAAGCAAACTGCCTATGAATTCACGTGATTGTGCCCCCTATTTACAAGGTATAAATGTGTTA  
AGAAGTTAAAGTTTTTGGATTATTGATTGTTGTTGCAAGTCTGCAAGACAATGCTTATAAAGTAATCCATTATCCTTT  
TCCACACTCTTTTCCCTTTTGAACAAAAATACCAGCAAGAAAAAAGGATGACTGTTCCAGGTCATCAAGAAAGTAG  
ACTACTTGGTCATTATCAAAAATATTTGAACATGTGGGCACCTTTATAAAAACAAAGAATAAACAATAGAAAATTATGTA  
CTTAGAAAAGTCCAGACTGTTAATAATTTCTGCACTTAAACACAGTAAGTGGGCCACAGACATTAAGGTACTAAATGAT  
TTATAGATGAATTTATATTAGTTTTCAGGACACCAGCAGCAATAAAGTATTTTCTACTTTTATAAATAACTCATATGG  
AACTTTTATCTAGTGATACACTAATCTTGTGTTAGAATGTGTAAAGAAAATATTTTATAATGCAATTGTACAGTGTG  
GAGTGATTAGGATTCAAACCTTCAACTTCAATGAGAATTTTAACTTAGTCTTTAAAAATAGTAACTGAGATTTAT  
ATTTATGTTATTTTATACCATCTATATTCCATAATCTTCTATAACATGATTTTATATTCCTACCTTTTATTCAACCAT  
TCTCTTATGTCATTGGCTGTTTAAATGTTTAAAGTATGTTTAAAGTATGATGTTTAAAGGTGACATCGTGTCTGCTTTT  
AAGATGCATTCTCAGAAAATATGATGTATAGAGTTAAAGAACATTTTAAAGGTGACATCGTGTCTGCTTTTCTGAGACT  
GTTAGCAGTGTGCTGTAGCGTATTACACTGCTGTATCGCTGTATCACTGCACCATCTCAAAATATTGAGTTTTTTTATA  
GTTAAGTATTTTATAAATTAATATGTTGGATAAAATCTAATTTATCTCAATTGATTAAACATTGAGGCTGCAAAATTTT  
TATAGTGTAAGAAGATTTTCTATGTGAATTGTACATTAGTGCTTATTGAGACATTAACATTTCTGTCTTTGTTGTT

Fig. 6. 388



TTGTTGCTGTTGTTGTTGTTGTTGTTTGTACACAGAGTCTCATTTCTGTGCCACCCAGGGTGAAGTGCAGTGGCCACAATCTTGGCTC  
ATTGCAACCTCTGCCCTTTTGGGTTCAAGCGATCCTCTCATCTCAGCCTCCCGAATAGCTGGGACTACAGGTGTGCACCA  
CCACACCCAGCTAATTTTTGTATTTTTAGTAAAAATGGGGTTTCACCATATTGCGTAGGTTCAGTCTCGAACTCCTCACT  
TCAAGAGATCTACCTGTCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCACTGCACCCAGCCCTTTCTCCCTC  
ACACTTTTGGAAAAAATATTTTTCTCAGTTTGTGTCTTGCCATCTAATTTTATTACATTTGCTTTTAAATATACAATATA  
GACAAAAAGAACTCACTTTTCTTTGGAAAAATTGATCTATGACTTTTATTATATAAAAAGCTTTCTCACCCTCAGGTCA  
ATGTTTCACTTTTATTTTTCTAGTTTTTTTTTAACTTTTGTTTTTAATCATCTGTGAAAAATAATTGAAAGATGATATTTA  
GATAAAAAATTTGTGTAAAGCTCTACTATTTTGTATACAGATTGAAAAAGGATAAAAAAGAAATGAGTAAGAAGTATGCGTAG  
TGTTTAGAATGAACATGAATGATAAACTAATAGGTATTATTTTACAAATTATAGAATATTAAGATAAATATACTCTAG  
AGTATAGAAATATATTTTATATTATTATGTTAAAAATATTAAATATTTTCAGGCATGTAAAAATAGATGATAGTGTAGCCA  
TTTATGCATCAAAGAGTTCAAACCATAACAACCTAAAGGTAAGTAACTGGGGCCCTAGTGTACCTTCCCCAATTCATC  
ACCTTTCTCTTCCACCCAGAGGTAACCTACTATTATGTGTTTACTTTTTCTTGAGTATGTTCTTGAATAGGTGTGTATTCA  
AAAGAGACAGTTCCCTTTTGCACTTTGGAAAAACAAATAATCTGCCTTCCCCCCATGATTGCATTTTATATGTTTTAC  
TAAGATATTATTATATAATAATATTACACACTTTTCTCTGCTTCTATTCTATGGGAAAGGAACCTTTTTTGTGTTCAAAT  
TTGTCACTTCTTATATGTACTGCCCATATTTCTGCAATCTGCAACAGAAATCAGATTGTATGACAAATGTGATGTTTGG  
TACAAATATGTGAGCTTATGTATGCTGTTGCATGTGTTGCTCAGCATTGCGTGTATTACTGAGCATTGCATGTATCACT  
TAGCCTGTCTATAAAAAAATTGAGACATTTATTTAAATAATAATTGTCCACAATCTATTTCATGTTTATGCATGTGGATA  
TTTGAAGCAAAATATGCCATAGAAACAGTATCTCTTGCTCACTGAATTTTAAAGTATTTTAAACATCAGTAGCAAGTGCA  
TAATAAATCTTTAATGTATAATACGAACTGATAGAAAAATAGGGCTCTGCATATTTTTTCTTGAAAAACAAATGTGTTT  
TGAGAAATATAGCTTTGTCTAATGCTGCCTTTGTAAACCGGGAAGTCAAAGACAAATAATTTTTGATTCTATATGT  
TATGTTGATTATATATAGTATGTATGTGAATGTGCATAACTATATGGATTCATATATGCATATATACACATTTCACTT  
ATACTCATGAAATGGTAAAAATCCAGCTAATGATTTTAAACATTTGGGTCAATAGCAATATATAAAAAATAATATTAAACA  
TTCAGATCTTTTGCAAAATCTAAATGGGCTTGTTTTTAATTTTTCATGTGGACATTTGAAATTTTATAGATAAGACTAACA  
ATATGTTTTTACTGTACTGTGAGAATTTAAGATTAAATGAAATATTATGTTATTAATTTCTTACATTTGTAAAGTTGTTTT  
TCACAATACCGTGGCCTATTAGATTGCTAAGAAATTATGTATGTCAACTCTTTCTTTATACAAATATTGAAATGATAG  
TAAGATTAAAGAACTTGCCAGGTCACAATTTTTTTCTTTCAAATTTTCATGCTGATTTCTAGGCAAAAATTTTCAGGGG  
CCTGTCCAATACGCATGAATTACCCTACTATAAAACAAAGCTAGGGAATTTAATACATACCGAAAGGCATTTTGTATAT  
ATCAGAACTATACAAAACCAAGAAATAGTCATAAAAATAACATTTTAAACATTTTAAAAAAGATATTCCAAATGCCCT  
CACTTCCAGGAATCGCATTTTAAAGCCTAGGCTTTATGTTATGTCACTCAAAGTCATTGTACTCAATTAGACATAGATG  
CTATAATTAAATTAAGTATTATATGTAAATGCAGAAATACCAAAGAGAAATTTCAAAGAGTATAACAGTATTAAAGTCGTT  
TCCTTAGTAATTTCTCATTGCTGTGAAAAACATCTGTAACTAATACATTTATATTCAATTTTTCATATTATATTATGCA  
CATATTATTTTTTAAATATTTGTTAACAGGTAATTTTCTGATTACCAAAGTAATACCTTTGTATTAAATGTTTGAAGACT  
GCCTCCAAAATTTGCAAAGAAGAAAAATTTTAAACCGTTATAATCCTACCTTTGAAATAATTAATCTTCAAATGTTAGA  
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AGACAAAATCTCACTTTTATACCCAGGCTGGAGTGCAAGTGGCATGATCTCGGCTCACTGCAACCTCTGCGCTCCGGGT  
CAAGCAATTCCTGCTCCAGCCTTCCGAGTACCTAGGATACAGGTGTGCACCACCATGCCCGGCTAGTTTTTGAATT  
TTTAGTAGAGACAGTGTTTTCGCCATGTTGGTCAAGGCTGGTCTCAAACCTCTGACCTCAGGTGATCCACCCGCTCAGCC  
TCCCAAAGTGCTGGGATTATAAGAGTGTGCCACTGCACCCGGCCAATTGTAAGAATTATTTTCAAAGGAATTTATATCA  
AGTTACAGTGGCCAGAATATTCTGTATTTTAGCTGTATTGAATATCATAATTTTCTTAACATGTTTTGTCTTTAGAT  
GGTATAAAATACTATCTCAATATTATTTCCATTTGTTTGTGTTTACCTTTTATATTTCCATTTGCTTGAACCTCTCTGCTG  
GAATCTTTCAATATCTACCTGATGAATCAATGTTTATCTGTTGGTTGTTTTCTTTTTTTTAAATTAATTAATTTATTA  
TTATTATACTTTTAAAGTTTTAGGCTAGACTGTCACAATGTTATAGATGATTTTATTTCTTTTGTACATAAAATTTGAC  
TCTTTATTTTGAAGCAACTATTTCTAGCTTTTTTGTGTTCTCTGTTTTATTAATTTTTTATGTGAAAGAAAGTTTGTGTTT  
CGAGGCATGGGGTGGCTCACACCTGTAATCCTAGAATTTTGGGAGGCCGAGGCAGATGGATCATTTGAGACGAGGAGT  
TCAAGATCAGCCTGACCAACATGGTGAAATCCCGTCTGTACTAAAAATATTTAAAAAATTATCTGGGTGTGGTGGTACAT  
GCCTGTAATCTCAGTTACTCAGGAGGCTGAGGCAGGAGAATCACTTGAAACAGGGAGGTGGAGGTTTCAGTGAGCTGAG  
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ATTTTGCTTAGCATGCTTGCTTTTATATTTAGAAAACTAAATCTATTCCATCTAAAAATATATTTTGGTGAATAACGC  
AAGATATGTAATCTCAGTGTTTATTTATAAAAGTACCAATCTCAGTTCTTATTTTGTGTAAGCTTGTTAATTTTCAGAG  
TTTGATATATTGAAGAGCTCTATTCCACTGACTTAAAAAATTTGAGGCAGGAAGGATCCCCCTCAAGTGTACATCTTAGA  
ATTTGTTTGTAGTGACTTCAAGGCAGTTGGTGAATAAATTTAGAATCAAACTTTGGGCTGCAGATTGCGTGAATACAAT  
TAATAGAAAAACAAAATATTTCTCAAATTAATCTTTTGACATTAGTAATCATTCCTTTATATACATCTCAAGTCTAAA  
CTCCCAATCTGTTTATATGCAGAGATTACAGCTTTAAGATTTATGTTTCATAACTGCAATATCACTCTATGATACATT  
AATGGGATTCTGTACTCAACTATTCCATTGGCATTCAAGTGAATAATTTTATACAAAACCTTCTTCAGGAGACAGGCCC  
AACTGAAGTGTATCACTTTAAACAAATATCTATGGGCAATAGATAAATCTGATATTTTTCTGAGTAGAAGAAAACATA  
AAACCTCAATATAGGATTAATAGGGTTCAAGGGGTTTTATAAGCACAGTGCTTGTGAAAGTATGTAATTCCTATTAAGG  
CTTGCAATTCATGACACATCATGTTATATGCTCTCTCTGGGAATATGTAAAGCCAGTTTAAATTCATTAACAGACATT  
CGAGCTAGACCTCCGCAAGCCTTTGACGTGACTGAGTCACTCAGGTTAATCTGCAACAGGTTGTAGAGAGCTTTT  
TTCATCTCTCCCTCACACATTTCCAACTCTTTTCTTCTGTGTTTTTTAACTGTGACTTTTCTTTACAAAAGGAAAAG

Fig. 6. 189

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AGAATTTTTTTAAGTCCATGACATATCCAATGAAATCGAAATGATTTAATACATGGAGTTATCTTAATATCTTTTGCT  
TCTTGACAGTTCTCTCATATCTATCTAGAAAATATCTGGCCAAAAAACCCACTTTACTTTGTTTTATGAGATATTAGAT  
TATTTGTACATTTTCACATTCCAGGGCTACAAGGAGACCACAGTAGACAAAATCAAACCGTCTTCTTTTCTTTATAG  
GCTTGCTCAGCAATGCAGCACTGTAATGTCTCTTACTTGAAGGAACTTCATTCTATTGTAAATCTTAGGACAAATAG  
AATAAGGAGATAGAAGAGTTGTGTGAGTTATAACTTATATGTAATTTTCTGTATATATTTGGAAAGTTCACATCAGAT  
ATTGAGTCTATTTTCAGTCTGTTGCTGTGAATAGAATACACTATTTTATCTTATTGGTTCTTTTCTTAACTGTCAACCA  
TGGTTTGAGCATAGTTTAAAGAAAAAAAATGAATGCTTTAAATAAAACCAGTACCTGGGTTGGAGGTGGCAAAATATAT  
ACAAACCTGTGTATGTGTGTTGGGTGTGCGTGAATCTGAGGATTATAGCCCTGTATCTGTTTCAGGGAGAATTTTTT  
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GAATAAAAAATTCCTTAAATTCCTTATTTAGATTAAATGCAGATTTAATCCTTAACCCATTGGTTCAAAACTCAAGTTT  
ACTCTTTCAGTAATAACAAGAAGTGGTTGTCAATAACTCTCATTAAAAATAATTTTTCAGCATTTAAAAAGTAATA  
AAATTGGTATTTTCTAATTATATGCTTAATACTCATCCACAAAGGTAAATAATTAAGAAATTAAGACTGTGAAGAA  
GAAGGGAAGAAAGGAAGGAAGAAAGATGGTAATATGCTATTACCATTACAAAAACAACATTGATGATTAGGCAT  
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TTCAACTCTGTTTCAGCACAGCAGATAACATTCTAATCCATGTAATCATAAGTAGAAAAAGCAGAAAGAAATAGAATCC  
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CTTATTATACTACATCTCATCCATTTGTTCTGTCTCCATGACTGACTTCTCAAATAATCTAACTCTTCAGTGAGCCC  
TTTAAAGTCATGGTTTTATCCTATATCTGTCCAGGATTTTATCTCACGTTTTGTCATGTATCCAGCTCAAAAGGATTAC  
TTTTCTGAACCTTTCATTGCCCTTGGATTTTGACCTTCCATATACTTGAAATCTCTCTTTTTTAATATCACCACCAATAA  
AAATCCATCCCTCAAGACCTCACCCAAATTTATTTTCAACTCTAAATGCTGATCAACTATGTGGAGCTGACCTTTTCA  
TCCTGTAAATAAGTGTTATTTTCTCTTAAAGGGATTTGCCACATGCAAAAACCTTGCAAAAGCAGTGTCTTATTCAT  
TTTGAATCTCCATTGTGCAATTTCTAGCTCACTGTCTACACAGAACATTACTATCATATTTAGAGGCTGAATAAATCAT  
TAAATGGATACCATCACTGGGCCCAGTGAATGACTTACTTAACTCAAATCCATGTGAAAGTCACTTAATAAATATTAA  
ATACCATCAATCTCAATTTATTCATGGGGTTATTATTCACAACTTACTTGTGATATGTCTTAAAGGTCAATTTACAT  
AATGAATGATCTGCTTATTTTATTGGCATAAATAGGTTTCAATTTAAACAGATTTTATTATTTAATTAGCTCCAATTTTT  
CCTTTAACCATCTTTTTCAGAAAGCAAGATTTTGCTTTTAGCTGTCTTGCCTAAATCTGAAAGCTCATACTGATCATTTT  
CATTTAATAAGGGAAGATGAAAAGGGCCGGTCAGGGGACTGGGATCCAAAAGGTCAAGAGTTTCCATTCTCTTCTCCA  
TCAGATCTTCATAGTGAGTTTTGTAAATTTGTGAATTTAGTTCAATGAGCCAAAAAAACCTTGCTGATCAAAACAAA  
GCCCCTTTGGTAGGGAGGAAATCTGTCTCTTTGTTTTCTCTCTCTCTCTGTGCGTGAGTGAGTGTGTGTGTGTG  
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GGAATCTGAATGATGTTTTGCGCAGCAGTGATCTATCTAGACAGATTTTGAAGATGTCAAGATTTTGTGTGTGTGTG  
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AGCAAGAGCTGACTTAGATGACTTACAAATATCTGCTTTTTTGCATTTTCTAAGGTAGATAATTTGTGTATATTTACTT  
TAAAAAGTATTTGTAAGCAAAGAAATGACTGAAGGAAACATTAACCTCAACAAAACCTAAATTAATGTGTGTCAATGT  
AATAAACTTAGGAAGAAGGCGGTTGCTTGAATATTGTAGTCTGGCACCAGCTCCTTCAAAATGGCCATGTTTTAAAG  
TATGGCAGGTGTGCTAAAAGTCTTTATTGCAAAATCATTAGAAAGTCTTTTTTTGTGAGTTTAAAAATGCATTCAGCTA  
TAAGCAATAGAAAACTAACAAATGGTTGAATCATCTAAGGGTTTGTGGTCTTGTGGAAGGATATCAGGAGGTAGCAA  
ACTAGGGCTAGTACAGTGATTCTATGATACCTCAAATATGTGATTTCTTTTCTTTTCTTCTGTCGACGATCTCTC  
CAGCATATGGCCTGTCTGTGCTTGTCTCATCTCAGCACCATTGGCGGATACTGCTTCCACCGGCACWATCTCCTCATTC  
CAGGGTAAAAGAAGAGAAATGGAAGGAAGTAGGAAGGGATGGTGTCTGTATCAGGGAACAAGGATTTCTTAGGAATC  
CTCAGCTTATATAAACCCAGCTACCTTGCCCCCTCTGACAACCTGTCTTTTGGCAAGAACAATTCATATACTTGCCC  
CTACCTTCCAGGGAAGCTGAGGAGCTTGTTTTTTTTAACTAGACATATTATTGGGTGATTAACATTAGGCTTATATAAA  
TAAGAATGAAAGGGAGAATGGATATCGTATATACAATCAGCAGTGTGAGCCACAGTCTTATAGTTAAGTGGACACCCT  
AAATTTGGTGGGATTAGAAAAGCAATTAGTTGGTGAGATATAAAAGCAATATAACATAAGGGTTTCAAACAAAATAT  
CAGATGATATTACCTGTATACTATTATGTTAGGGGTATAATACCATAAATATGCTAAATTCAGATTAATAAAAAGTTT  
TCACTTTCTGCACAATCATGACCTCCTTTTATTAAAATAGACAAATAGTCTGGGGTTAGTCACACAAAGTCTATATGGC  
ACATGACTACAATAATTGATCTGCAACCTCTCTGTTCTTTAAAGTGATTCTGTGATATCAAGGAGTGTGAAATTTAAAC  
CCTGGAAGCCACAGAAGATGCCAAATGGACACATTTTGTGACTATTTATAGCTGATCCAAAATGAAAGGGGAGAATGA  
GGAACTGATTGATAGTCCCCAATCTGTTTTGATCTGAAATAGCTTGTTAAATGAATCTCATTGTGAGAGCTAGTTTA  
AATAATAAATGTCTTACTCTCCACTATTCCTGTCATATGTGAGTCTGAAAGTAAAGTTTGTAAATTAAGTGAAGTGA  
TTTTAAAGTTTAAAAATGATCTCAACTAATAGCTAATAATAAAATAAATACTGCATTCTAATTTTTTAAATTACC  
CTGGTTTGAAGCAGAAACATGTTTTGTACATAGCTGTAATGTTTCACTTTAACTGGTTGTGTCCTCCAGTTTAGTAT  
CTACGAAGCTTTGCAGTATCGGAACCTCCATACCTGCTTCTCCCTTGGTTTCTCTCTCAGTGATAAAGGATTGACTT  
CTTTCTTCCCCATTCCAGCTTGCACATTCTGAGGTTTTCCGGCTTGAACAAATATATTACTAGGTCTGCAGTATCA  
TTTAGATTGAGAAGTATTGTGATAGAGCAAGGTTCCACCTAAGTATTGACTCTTAGAATCTGCTCATTCCATAGTCTGT  
TGAGTGCTTTTACCTGTCACTGTTGTCTTAAGCACCAGGAGTGTAGCGATGAAGGATTTCTAGTCTAGTTATCTAAGG

Fig. 6. 190

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ACTCACAATTAGGTTTCTATTCTGGGGCTATTTTGTACATTGTGTACAAAAGACTGCATTTTAAAGGTGTCTGACTTT  
TGACTTGGTTTCAGAAGGCATAAGAAGTTGGTTTCATGGTTACAACCCCATGCCAGAAAAGTTAAGAGTGGTATTTTT  
AATTAATTTGTAAGTAGAATTAAATATAGCTAGAATTATATAGGAATACAACAAAAGATTAAAGATGTATATACATCCCT  
CTGAATAATATAAAATATTGACAGGCTGATATTGGGTTTTCTAGACTTACTTTTCGTAGGTATTTTCTTAGTATGAAGATA  
GTTAAATATACTAAGTGAAAAAAATACTCAAGTCACTGTATTAGTGGTTCCTAGTAAAACTACAGACCTCATCT  
GTTTCTGGAATTTGCAATTTTAAATATTGATTTTTGGAATGTGGCGACTTACACTGCCACTTTTAGTTTGGCAGGTGA  
GCTCATTTTTGAAAAATATCCTATACCTGTCATTATCTTTGATAAAAATCATGGCTATTATGAAATTTAAAAATGGTAA  
AGACAATGTACAGAAATGAATCGTGCTTCTAATTTGATAAATGTAGCTTAATCACAAATATACGAACTTTCTGTTGG  
TCTGGTGCAAACTTTCTCAAGGAGAAGATTTAGTGTTCAGAACCATTGGAGTAGATGCTATATTAACATTGAGGCTC  
TCTCACCTTTAATCTTATAAAGCTAAATATAGTCAACAAATGAATTGGAAAGACATATTAGTAAATCTACCGAGTCTA  
GGCAGGCTTATGTGTGAGGCCAAGATGCTTCCTGGAATTATTCTGTTGAGAATGATTCCTCTTTCTTCTCATTCTCTA  
AAGATAGGATGTCAACAGTTTTCTTCATAAATGAAGTTATAAACCATGACATTTGTGAAACTATTGCAATAATCTTGG  
GTTGTGTAGGGATAGGATGACATTTTCAGAGGAAATCTCTAAACACTTTCACATTAATAACATCTGGGAGCCATAATA  
TTATAAGCATAGAAGTGGATCTCATATAAAAACATGATTTTTTTTTCACATTTATGAAATTAACATATGTACTTG  
TAACAATGTGAGATCCCTGATCAAAATTAGGAAATCTACAGCCATTTATTTTAAATCTTGCTCTACCAAAATTGGATTGA  
GAGACAAATTAACACAAATCATTAGTTACATTTTATACTATAGAGGATGTGCAGAAAACAAATATTCAAACCAATT  
TTATGTACTATATTGTGCCATATAGTACAGGAAATCTGTTTTCTTCTAAATTATTAATAATTTAAAAATCATGAATAA  
TTGTTTATGTAAGACAGCTGGCCAGGCTATTAAGGGAGTACAGCTACACAGTAACACCAAGAGTGAGGTGTCATCTGA  
GCTACCACATGGAGAAAAGAGCAGCTGGCTTTGCCCCACCATATTCAAGTTGAAAGCTGCTTATTACTGAGCATTTGAATA  
ACTTGAAAGGAGAGAAAAGGAAAGAACACGTCAGGGTAGAATGTTTACTTGTGTTGAGCCTCCAGGAGAAATGCCATA  
CAAGATTTGACTTGATTTTTTAAATCAACCAAGATCTTCAGATTACATTGGAGGGCTGAAGCTTAACTATGTA  
TATAAGTTGTATTATTTTTATGTTCTTTGTATTATACTATGTTCCCTTTTATATTATGTTTATATTACCATGAACCTT  
AGAGTCGGGATAGATCAGAGCTCAAGTCTTAATGTCTCTCTTCCAACTGTGTGACCTGGGAAAGACATTTAACGTGT  
CTAAGCCTCAATTTCTCATCTATCAAAATGGGGATAATATGTTTACTGACTACAAATTAAGTAAATAAGACCTACAAA  
ACTGGGTGCTACTGTATGATAACACACAGTTACTACAGATGCTATTATATTAGGTACAGTGTGTGAAGAGAAAGTAA  
AAAGAGACAAGATGCAAGATAAAGAGGCAAAATGCAAGATCCTATTTCAATGAAGCCAATAGTAGTCTTTCAAGT  
TGCTGTTCCTTCTTATTTCTCTCTTCCATAATAATAATTCCTATTGTCTACCAAGTATTGAGAGCCTGTCTAGGT  
CAGACACATGGCATGCATTGAGAGAAAGAGAATTCAAAATATTCTCTTGAACCTTTTGAGCACTCTATCAATGGGTCTT  
ATTTGGTTCCATGTTACTGTGAGTAAAGAACATGCTCACAGAGGGTAAGAAACCTGCCACCAGCACCTTACCAGTA  
GACATTAGAGTCAGGACTTTAAACAGGCTTTTGGACTCCAGAAACCATGCTCTGCCTACTCAAATTTAGTAGCTGTTCT  
GAGGATCTCATTCTCACTTATTTCCCTTTTTTATTTGTTGTTTATGTTCTAACCACTGATTTGAAACAAATCTCAG  
ACCAGAAATTTTTACTCCTGTGGAAAGAGTAATTGGATGTTCTCATTACAATATTTTTTTCTTCATGAATGTAATCAAA  
CATCAGCTGGAAGCTTGCTTTTAAATGCGTGGATAAACAGCCACACATTTTATTTTCCCTGAGGCGTATTGCTGGGAA  
AATCTATTTCTGATTTTAAAGAAATCAACATATGCTGAACCACTGTCTATTTTCAATTAATTTGACAGGAGCTGAGACT  
CAAAAATTATGTTGATTTTCCACTTCTAACATTGTTGATAGAAAAGTTGAGGTAAACACTTTATTTCTGCCCTTAGATGC  
CTGCTAAATAGTCTCTCTAAGTAAAAATGTGAGGAGCTATTGTTGGATTAATTTAGGTGGAGTTGATACAGTTTTAG  
GGAAGAACCGTTCTACAGTATGAGAACAACTTTTAATATTATGTTAGTTATAATCTGGAGCATTTATCATACCTTATTA  
TATATCGTATGTTTTGACTTTCTCCTCTATTGGGCTGTGGGCTCAATTAAGATAAGAATGTATCTCCCTTATCTTTGTA  
TATCGGTGCTTAGTGATTGCTGGCAGATAGCAGGCTCAACTCTGTTGAATTAATGATCAATGAGTTAAACTAGA  
TGGCTATATAGTTGATCTTCTATATAGTTGATCTTCTATATTCAAAATATAGTTTACATATATGTATGCAAGTGTATAT  
GTGTGTTTATGAATAAGAAGAACTATATCTTCACTGTGAAAAGTTATATTGTTTCTCATACAGATTTTATTCCTTT  
AGCTAAAGTTGTATCAATATTAATTTATAACTGATTAACCATGATTAACGTTTGGCAGATGAGGCTTTTAGTCAAGCT  
GCTACAACAAATACTATAATCTGGATAACTTACACAACACAGATTAATTTTCTCACAATTTGAGGAGCTGAAAGTTC  
TGAAATTAGGGTGCCAGCATGTTTAGGTTCTATTGGGGGCCCTCTTCTGGCTTGCACTGAGTGCCTTCTGACATGGTG  
GAGAAAGAGCAAGCTCTCTGGTGTCTTTCTTATAAGAGCACCAATCCCATCATTGCAGGCCCCACCCTCATGATCTCA  
TCACCTCCCAAAAGACCCATCTCCGAATACTATTACATAAAGGGTTAGGGCTTCCACAAGTGAATTTTGAAGGGGACAT  
AATTCAGTGCATAGCAATGAGTATCTTGTAGGCTTATGACCATATAATTTGAAGCTATGATTTATGTAGAAGTTGGACA  
AAAATGTTTACATAATTAGTTATGTTTACATGATCTAATGCCTGAAACTCATTTTTTAAATATGCTGAAACTCATTG  
TTAAATATATAGTGTGGGAAAAGACATTTAATATTGTTAGCATTGAACCTTAAATAAAATTAACACATTGACTTT  
AGAGAAATGTATATGTTGAAGAGTAGGTGTGGATGAATGAAGAAGAGAGCTAACCTTCTCAGTGCCAGACACAGTG  
GTGTGGGCATTAATAATTCAACCTCATAGCAGTCTTAGGGTGGTCTTAACCATTTTCATGGGGAATTTGAGACTCAGA  
AGTTTACTAATTTGGCCAAAGTCACATAATTGTTTAGAGACTGATTCAATCAATGTCTTCTTTATTCCAATCAATCTT  
TTAGGGACCTTATCTGTTATTTATATGAAAAAAACAACTAATTTAATGTTTATGGAGTTGTTTAAATTAATAAAGC  
CCTTAGGATTTCAAATTTGTTTCTAAGTCCAAGAGATCCCAATGAGAAGGAACACAAAGTAATTTTAAATGATTTAAAG  
TAAATGCTTTAGACTGAAATGGTAGCTTCTTTTAAATAACATTTCAAATTAGGTTTACTATTAACATTTACAAAGAAC  
CAGGGCTATAAATCAACTTTATATGAGTGCATCTCCATTGATCTTAATAGTTGATTTGCAAGCTGAGTAGAAGAGATT  
TACAGTTCTCTCTCAAGGGATAGATCTCTTTTTTGGGCAATGAATATACTCCTTCAGAAAGTCTCTTGCTCTTTTAC  
GTACTCTTTTTGCTTGGTATTTCAAAGGCTTTTTGTTATACTTTAAAAATATTCAACAAAAAGTCACTGAATATCTAC  
AATGTGTTTATATCTTGGGTGTAATGCCAGGTAAATAAGATGCATAGAAATATGGACCAGTGCTACAGGCCAGCAG  
TGAGCAAACTCAGGGAACAAGTGACACTAAACAGTGTGGAGAATGCAAGGCTAAAGGCTATATGAGTCTGCGCATG

Fig. 6.19f

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AGACGGAGGATATGGGCTGAGCAGCGCTGCCTGAGGAGGTGATGTACAAGTGGGTATTTCCTCCCCCCGGGCAAAACGAG  
AAGGAAAGGTAAAGCCAAGGAACAAAGTAGACAATGGAGATGGTGGGGAATGGAGGGAGAAGAGGAAAGAACTCTGGAG  
AGATAGTCAGTCTTAAGGTCCAATTAACTATTTTCATGGCAGCCATTATTATCCTGAATTTTATGGATGAAGAAGTGAG  
GTTCAAAAATATTACATAACTTGCCTGTGTGACAAAATAAATGAAAAGCAGAGCCAGGTTCAATGAAAGTATGTTTGA  
CTTAGGTTTTTAAATTTCTAGTCATAAATGGCAATTTAATGTTGTTTATATATTTGTATTGGGCTTCAGCAAAAACAAAA  
TAAACCTCAAGTACACAAAAGCTCTAGTAATAGAGCCATTGTTTGTGCAAGTATTTCAGCAATCCTTGGAACTTCCAA  
AATTCTCTCAGCCTGACATCTATAGTCCCTATGTGTCTATTTCATTATGTCCACCCTGGTGGTGCACCTCACACCCACTT  
TGGGAGAAAGGGGGTTAGAGAAGGGGAGGACATCTGTGGACAAGCCAAATAAAGCATTACTGGCATCTGATCTTCATAA  
TTTACACTTTTTATTTATGCATAATTAAGTATAAATAAAACAAACATGTATTTTCTAAGTCTGCTACCTGTCTGTTTCCA  
GTCTTGCTTGAAAATCATCTTTCTCAAAAACCTACCTATCATGTGCTATGCCCATTACCTGGGTGACAAAATGATCTGT  
ACACCCCTACAAAATGCAACTTAGTCATGTAATAAGCTGCTTATGTTCCCTCTAAACCTAAAATAAAGGTTGGAAAGG  
AAAAAATAAATAAGATAAAAAATTATCTTTCTCTATCAGAGTAATTTGACATCTTGAGGAAGTGATCTGGGACTTCATA  
TTCTTTTAGGATTTCAGGTGTCCAGATAATCCCAGAAAGTAGCCAGCAATTTGGCCATTGGGGGTGTAGAAACCTTCATACC  
TAGGTTATTGTATAACTCAGGCTATTCTCTCCAGGTTTCCAGTGATTAATTAGCTGTGAACCTCAACCAACACCTGAC  
TCTAGAAGAGTCTTTCAAATAGGTCTTAGAAGGACCAAGTAAATCACCATCCCTCAATCCCTCAATTTTTCTTTTTTCC  
AAGTCAAGAATAAAAGAAGTCTGGGAAACATTGCCAGGTCAAGCTCTTTTTAAGCTCATGATTTTCTGCTACCTGAGGG  
AAGGAGAGAAGGAAAAAGAAAAGAAAAGAAAACCTCAATGAATGCTCCATAACCTGGATTTTAATCTCTCTTTCCCTTT  
TTGGGATAAAATTTGTTTAAATGTAATTAACATAAGGAGAAAAGTTAACAGTGGCTTCTGCTTTTGTGAAAGCACTTT  
TTCAAACCCAGCTGTGATGTCAAATGCATTCAATATTAGTTTGGACAACCTCCTTAGCTGGGTCTCAGAATGCATCTCTA  
AAGAAGTGTTTTAAATATTTTTAATGTGAAAACCCATATGGGTATTTTGGTGATAGGATTTCTTCTATGATTTCAGGAA  
TAAAGTATAAGTCCCAAATAGGCCCTTGCCATTCTCTATCAGGGACATTGTCATCCATAATCCATTTTCCATATCCGTTTG  
TATGTAATAGAAAAGTCTCACATCACAACTTCTGTTTTTCTATTGTAGGATCGCCTCATCTGTATTATCCAGTT  
AGTAAAAATTATCCAAATCCCAGAAATATAACAATAGTCCGTAATTTCTTGAGCAATTTACTCTGTAGCTCTGTGTT  
AAATGCTTTGCATGTAATGTCTCATTAGTTTTACCACATTCTATGAGGTATTTACTCTCCTTTTCTTATATGGGTAAAG  
AAAACATGTTGAGTTATTAGGTAATTTGCCTATATTACATACTGGTTCATGAGAAAACCTAGAGGACCCAGGAGATTGA  
AGCCCATATTTTCATCATTGACTGTCTTAGGAAACGCCCTGTATACCTGTTTTTTAAGGTATTCTGTCAACCAAGAAC  
ATTGAAGGTATATGTCAGATTCTCTTTTCTGTTCTATTCCACTAGACCTGAATATGAGGGATGAAAATTGCTTTGGTTT  
TGATGTGACTTCAGTACCTTCTGTATTGACACAGAGGTGAGTCAGCACTCTGATCAGGTGTTGAAAGCATTTAGTAAGAT  
TATTAGTTTATAAAGAAGCTGAACCATGACTATATAAATGAAGCAATGTAAAAAATCAGAAAGCATTCACATTC  
ATTCTTTGAATTTCCAAAAGCATTCAACAACAGAAAAAGGGCAAAACAGTTTATTCCATGTATATATACTGAATTCCTA  
CTATGCACCTTCAACAATAAAGGCTTTTGGTATATAGGAGTATACTGAGCCAGTTAGATTCAAGTGAAATTCCTAGTA  
ATGTCTGGTATACAGGAGCTTAAATGTTCAACATATAACATTGTTTCTTATGATAGGTTTCACCTATAAGCCCTCTA  
AACTGTTTGTAACCTCTATAAGAAATAATTAATAAACCCCAACAAGGTCTATTAAATGTCTTGAGACAGATCATTCTACT  
CACTTTAGATTCTTCTATAGATAATAACCAGCCTAAAACAATTTTTAAAGACATAGGAATTCAGAATAAATAAATACT  
ATCTTAGGAACATTGGAAGAATAAAGAAATGCGAGAAGTTGGGAAAAAACTACTGGAGGAAAAGGGTGAAAATGTGT  
GACAATGAAGATTGTCAAAGGTTCTAGAATACTTTAAGTTAAGTAAAGTAACTTTTAGTTGCATGTGCTTTGACTT  
TTTATTTCAGCCTAAATTTGTCTTTTAAATTCAGGTTGTTTCATCTCCAAGGATGAATGTAATTAAGTGAATCTGTATT  
AGAGACTTGCACATTCTCACTCATTAAATATGATCAAAAGCATCTTATTTATGTCAAAGACGAGAAACGAAGGCCATT  
TTTGGCATTGTCTTAAAGTTGTGCTTTCTTGCCTTATTAGCATTTCATTTCAGCAATAGATTGAACAGAAATGCTTGT  
GATTGAATGAAGATTAATTATAGGGTATGGGAATATTCAAACCTTTTTAATTGTTCTGAGTAGTGTCTTCTGCTGTTTT  
GTTATCCAAAAGGGAGTAAGTATTGGGGAACAAGATTTGTGACACATCTGGTAATATTCAAGATGCACACCCCTCAC  
TAGACTGTCAAAGGCTGGGCTTGTGCAGATGTGAGGCTGTGATGTATTGTCACTCTTGCTGCACCCATGGATGCGC  
CTCTCCTGATATGCGACTCCCATTTGGGAATGTGAAGACACAGAGGAGATTTTAAATCAAGACATAGGTAGGAGCAAT  
GATGCATAGCTGGCAGATGCAGATTTTCAGCCTGGGAATATTAGAAATAATTTGGATTGCTTTATAGTTTATAGTAGCAT  
CTTTTATGCAAGACTCTGACCTAATTTTCAAAAATTATTGCTACTGATTATAATCTCATTGTTGCTTTCTTTTATCT  
ATTCATTGTTTAAACAGCATTTTTTAGGGGGCAGGTAGGGGAGAAGCAGTGTAGCTTGGTAATAAAGGGCATATGATCTG  
GACCCAGCCTACCTTGGAAAATGATTAAGCCCCAATTTTCTATATGTAATAATGGAGACAATACTAGCATCTACCTCAC  
AATATTGTTGATTAAGTGAATGAAATGAGATAATATAAGTAAATTAATTCAGTAGTCCCTAGCACATAAGCACTCATTAAAT  
GTAGCTTTTTAAATATTGATTCCAGATTAACATGCCTAAAACTAGGGCTACGTACTGAGAATTCATAGAACCAATTTT  
ACTTTGTGTCTGTGTTCTTATGCTGCTGCATCAGGACTTACGAAGAATAACAGAGACAACTTTCTATTCTCAGGGTTG  
ACAATAGAAGAGAAAATAATAACACAGGAAATAAGTAAAGTATAAATCAAACCTCAAGTTTAAATGATGTATAAAGT  
AAGAGGTGAGTTTGGGCTATAACAATCAGATAAGATTCACTAGGTGCTAAACTCGATCTAAACTGAGAAAAATGAGACAA  
GACTTATAAATATTAGTTTTAAACATAAATCTGAAAGTGTTACTCCCTATATTTTAGTAAGACTTCTCTGTGGCCCTT  
GCTCCTATAACAGTTTCTTTAAGGTTAAACTGCTGGGTTTCTGAGCTCTTCTCATCTCTACTAAATGAGAACCTCTAA  
TACAAGAGAGCAGTGTCTGGAATCTACATTTTGATAGAACCCAAGTGATTCTTATCAAGCAAAATAATGGAATTTCTAT  
CTTAGAGAAGTCTAAACATACTAAGCCCTTGTGTTAGACTCTATGTAATTTTCATTTTCAGCCACTCTGGGCTTGAACCC  
CTGAGAACCAGCAAAAAGAGAACTTTCTTCAGCACTTGGCTTAGCCCTCCCTCTTTTGTGAAGGAGTTTCCCTTCACTG  
GTCAGTGTCTCTTGTCTTTAATGATGGTCTTGAACACCATACTGTTGTTGTGACTTTAAAGACACAGATGTGAATCTGTTA  
CAGGTTTATATCCATTAAACCACTTGATCTTGTGTTTCATGCTCTCTTATTCTCACCTTAGCATTTAGTTACCCTCAC  
TAAATCAGTTGATCTTGAACCTTTAGAAATCTTACCCTTACCTGAGGGGTCTTGTGTTTCAAAGCAGATTTCTAGATGC

Fig. 6.192

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TCTTGCTCAGGTACTCTTATTCTGTAGTTGAAATGGGCATTTTAGGGCCAGACACTTTGGCTCATACCTATAATACCAA  
CACTTTGGGAAGCTAAGGCAGGAAGATCACTTGAGTCCAGGAGTTCAAGACAGGCCTGGGCAGCATAGCAAGACCCCTCT  
CTCTACATAATTAGCCTGGCATGATAGCACATACCTGGCTACTCAGGAGACTGAGGTGGGAGGATTGCTTGAACCCAGC  
ATTTTAAGGCTGCAGCGGGCCACAATCATGCCACTGCACTCCAGCCTGGGCAACAGAGCAAGATCCCATCTCTTAAAAA  
AAGTGAGCATTTTTAAACAAGTGTGTAAATAGTCTACCATTCTCTTAAAAACACACACAAACATACACACCTTGAATGCA  
AATGAATGAATGTGTGACAGAGTGGGAAGAAACAGCTTCAGAAGGGAGAATAAACATAGCATTTACAGAAAGATAGTGAGA  
ATACCACTGATTTGGTATGTTGGATGCTGGTTGGGAGAATTTTATGGGAAAAATACCAGTTGAGTGAAATTATGGATGT  
TCTTGAGAAATAGCAGAGTTTGAATTGAATGTGGCTTTTGCATAAAGTGGTAATTTTGGAAATTTTGGAAATAGGAGAAT  
GAATAAAGATGGCATCCCCAATAGTTGTCTAGGCTAGTCTTAGGAAGGGTTGGATCAGATGATCTCTAAATATCTCTT  
AACACTGAAATGTATAGTGTATGCTATAAAATATGTAGATATTGAGTTGTATTAATAAAGCCTTAGCTTGTATTTCATG  
GGATAAAACTTCTACTTAAATAATATTGTAATTTTCATTCAATTAATGCATGTGTATAAAAGTGGATCAGTATTGTGGAAG  
GTTTGCTTAAGGTGAGATACATGCAATGGTAGCCTGGAGCCAGGTAGTAGTACCAGCTCAGGAGTACTAAGTGTACGT  
ATTCAATGATTTTGGAGCCTGGTTGGAAAGCACAGGCATTATTAATTTATATAAACCCGTAATTAATAAATATATATGA  
AATGCAAAGGTAATCAATACTCAAACTCATTAGTTCCCAAGTACTTCATTATATTTTACTATTATCCATGCTCTTGAG  
GTTATGTAGTCCATCGTATCTGTGCTGGAAATCAATATTTGCAGGTGAGGTGAGTACAAATCTCTTCCCAACTCCCAT  
TCAGGGCCATCAGATTGGTAGCTTGAATAAGACATGCTGATAGTAGTTACACCATGGAAATGGACATACAGCACAAAT  
CAGGCCTTTTTTTTCTCTGGAGAGCCAACTGATAAATATTTACCAGCATACCAATGGCTCATGTTTAGAATAGTCCC  
ATTGTTTTGGGGTAGAAATTCATTTTGGTACATGGCCTGACTCAAAAGTTCACCCCTTTAGTGTACCTCCTGTTCAGC  
ATTGAAGCCACTTATGTCTCCTTATATGAAACCAGAAACAAGAGGCTTTTTTTTTTTTTTAAATCTAAGAGTGGCTGGCT  
TTAGTTGTAACAGAAGAGAGCAGGTACCTTTATTGTACTTCAATTTAACTCCTTTCAAAGGATCTGAGAACTTTTTTC  
AAAAAAATTTTATCCCCAAATCTGATAAATATGCTCTATTTTACAATCTTTTACAATCTTTCAAATTTTACAATCT  
TGAAAGACATTTTCAATCTTTTCTTGAAAGACAGGAGAAATATTTGCCATGGATGAAGAAACAAATGACTGTTTCTTTCA  
TTGTATAAAATCATTTCTTCTCATCTGTGAAAATAAGAAAATGAATTTTTTTTAGTTGAGCACAAATCTCGAGATCTTTCT  
AACAGCCTCTGTCTTACAGTATGGATGTTACTCTTGGTTTATAGCTCTGCAAAGGAGTCAAAGAATCTTCTTTTATG  
AGGGCCTGAAGAAAGAAAATTTGTCTGATAAAATTACTTTATGTGCGTTTGAATGATGATATGGCCAAGCATCTTCA  
GAACTTCTGAATTTTTTCTATGTATGCCTTCAAGAGTTGTAATCCTTACTTAAGCAAATGTCTGTTTAGGAGAGATTCCA  
GAGATTTTCTTATTTAGAGTGTTTTAAAAATTAAGGAAGGTGTTTACCAGCTTACTAGAGGTCTCTGTGAAAAGAGAA  
ATGAGTTTCTTCAACAGTCTTATGTCTTTGGTTCAAGCTGCATAAATTAAGGTGTAACATATCAGTATAGTTTGT  
TGATTAACCTTTAGATGGACATAGAAATAGGTAAATCAATTTAGTATCGAAATAAGTATTCTTACTCTGAAATGAAAC  
AAAATGGAATCTTTCAGAAACATGGAAACAATGACCCAAACATCAGAGAGGCATTGAAGATAAATGGGAATATCACTGGG  
AATAGTGAATTTGGAGCAGTGTTTTCCAAGCCCAATCCTCAGACCTCTCGAAATGGAGATTGTAACACTAGATTGTGG  
GCAGTCTATACCAAAACCAACAGTACTGAATCAGAGTGGGTATGGGAATGGCTAGAGCATTGCAATTTTACAGCATAT  
TCAGAAGATTTTATGTACACTGAAGTTGAGACGTGCTGATTTAGCAAAGGTAAGTACAAATTTGCCTCAATTCCTCA  
TCTGCAAAATGGGGATTATAAAAGTAGGGTTGTTGGAGGACTGAATGAGTACATATATGTATAGTGTTTAGGACAATGT  
CTGCTGTTTTACAGTAAGTGCTCTATTGTTGGCTCTTGCCACTATTATTGTTTGTCAAGGGCTTGTCTGTGCTAGCTG  
GAATGCAAACTTAAATGTTTCTAATTATGCAATTCAGATTTCCTTAAATATCGTAATGAAGCCAGCAGTGAAGAG  
CTGTCTCAGTTTAAATGTAACATTGGATCTATCCTAATAATTTTTCTTAGTTTCTTATGCAATTTGTAACATATTTTATT  
TAAATGTTTTATTTTTCCACAGGGTTACATTTATTTTATTACTTCAGAAAATATTAGATGTCATTCTGAAATTTGTGGCTG  
TGCCTTTATCTTGCATGTGGAATTCATTTTTTATATCTTTTACAAACAGTATTTATAAGAAATAAAGATAAGGTTACA  
GTGAGTTGTAGTATGAGATGGTAATTTACATGGGGTCTCCATGTGCTTAGCTTTTCTCTGAAGTTATGCATCCCCACA  
GCAAGGGAAATATTTGCATTTCTGAGAGTGAGAAATTTATGTTTATCCTCTACTAGGAATGGTGGCAGCTTTTCCAGGTC  
AAGGCCCTGCAGATGCCTGATGGTCATGGTAAATGAAGGCTGGATGCAGGGAAGGCAGCAAAATGAGAAAATCTCCTGG  
GATCAATTAATGGGAGTCATCTGAGAGAGAATAAAGGCAGGAGTGAATTTGCTAGTCAAGGAATTCGATCAGTTTTT  
GCCTGGTAATGGGTTTCTGAAAGCCAGATGAAAGGGTTTTATCCCTAAGGAAAAAAGGGCTCTCTCCATCATCTCTT  
TCTGTGCTCTTTTATCAATGACTAATAATAACATGCTTGCATCCATGACAATCTTTAGAAAATGATGCAAAAAACAAG  
TCCAAAATTAGAGTGTACAGCTGTCTGATTTCTGGAGTTTCTGGTGTGTGCTTAGTAGGCACACAGTTTGAGTTACA  
TGGCTTCATTATATGATTACACACTACTTTGTTGGCTCATTGGTGGTTAAGGTGATTTTAACTTTTTCAGTACCCAAAA  
GCAGTGTCTGGAACATACCAATGAAGACGGAGAATTGTTTTCAGTCCCAGAGATATCCCAAGCAAATACAGCAGTGAAC  
TCAATGGATATTTGTGAAATGAATAAATAAATGAATGAATGAGTACTACTGTGAATATTCTGTGATGTTTGCTTGTTC  
TCATTTGGAGAGTTTCTTTGAGGTCCGTGACCAGAGGTTGAATTTGCTGGATCTTAAAGTAAAGAGGATTACCAACTCCC  
TATACGATGCTCAATTCCTCTCCACAATGGCTATACTAGTTTACTGTCTGGCAATCGGTGTATGAGGGTTACCTGTTTA  
TCACATTGTTGTAACATTTGATTTTGTGATGTGATGCTAGGTTCTAAGGTTCCAAGGGGAGTTGGTGGGCAAGTGGCGG  
GTAGCTGGAAAAACAGTGAGGAAGTGTAGACAGTTTCAACATGGATTACTCTCTCTCTGCCCATGAGCCATGAGCGC  
AAGATGTATGTACAGCGTCAGCAGCGTAGTTGTACCTTTTACAGACAAATAGTGGCTCCAAGCCAAGCACAGCTTACAT  
GGGTGATCACCTAATGTGCTCAGCTGGCGTGGTTACATAATGTGCAGAGTTGTGAGCCTGTGCTCCAACTCACTGAG  
TCATGCTGGACCGGATGTCTGCTTCGGCCTATTTTGGAGAGCAGCACATCCATTTTCTTACACTCCACCCTCAATGCC  
AAAGGAGACACAGGCTTGGACACACAGGCTTAAGACACAGGCTTACGTACACTCTGGGGACAAAGGCCCTGGACA  
CACAGGCTCTGACACATAGGCTTAAATTTCTACTCCCTAGGCTGAAGGAGTCTTTTAAATGGAGAAACATGCCACAGGG  
TGGAAACCCAGACCCAGAGGCCACAGCAGTAATACAAGGAGCAACAACCTCAGGTTATGACGGGCAACACCCCATGAT  
GATGTTACCCGAAATTAATTTATGATTAAGCCAGGTTTTTATTTCCCTACCTTTAGGGGCATTGGGGCATGCAACAAC

Fig. 6. 193

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AGGTTACCATCCGTTTCCATCCTGGTCATAGGAGGTCTCTTCTCCCATAGGTCTTGCCACATGGCCCTAGCCCCACA  
TGGGCCAGTGGCCAACTAGCCACTTCTGTATTTTCCAGGTGCTTAACCACAAGGTTAAGCC13ATAGACCACACAGCT  
ATTGGTGCAGATTATCATATGTGTCACTCTTTGGTGATCACCATTATATTGCTCTGACTTCAGCCCATGACTACTT  
TGTCCATACCCGGTATGAAACCATATGGAGTCAGTACTAGGCTGGACTGTGAGCAGTCCAGGCAGTAGCAGCACCACAG  
CTAGACCCATCTGTGTACCGTGCCCCATCGGGCATAGGGGGGATGCCCTTCTTAAATGGTGAAGGCTCAGCATGTAG  
GGGTGCTTCAGGCCCATGTCTTAGGCCCCATGGCCTTATCTTGCACTAGGACTGCTGGTCTCAAGACCTCTTGCAAC  
TCTGCTGCTAAGGGACTTGTACTCAGCGTACTCTGTTGCTTCAAGTAGGTGCCCACTTTGCTAAAGTGGATGTCTGCA  
CTGTCCAGTCCGGGGGGTGTATCAATGAACACATCCATCCTGCTATCAGGTAACCTGCTACACGACAACATGTAGC  
CTGTCTGCCATGCTCTCATGAGCCCGAAGGGCAGCATATGCAGTTACTAAGTCTCTCTATCAGTGAATACTGGAGC  
TCAGCTTCTTTCCATAGTTGGGACCAAAAGCCTACTGGTGTCTCAAGCACTCCATGCTCTGCCACAGGCCCCAGCCAA  
AACCATCTGTGGTTCACATGCACATCCAACCTCAAATGAGCACCTTGGTCAACTACCCATAGGGCTTGTGCCTGCTGAAT  
AGCCTATTTAGCTGCCAGGAAGTCAGTCTCAGCCACACTATCTTAATTCTAGGCAAGAGGAGCATTGCCGCTTCTAAAT  
CTGCAAGAGAATCAGAGGTTAACATAATATTATCAATAAGACCTGACATATGATGGGGCTATGCATATATCCCTGCAG  
CAACACTATGAAAGTCCACTGTCACTTCCCGTGAAGGCAACTGTTCTCTAGAGCAATGTTAATGAAAT  
GCATTAATCAAGTCCACCACATAGTGGCACTGTCCAAATTCATCATCAAGCGGTCCATCAAATCTGTAATAGTAGGGA  
TGGCTGTGAGGCCATGTAAACATCCACCCCGAATATATCAGCGCTGGTGTCTTACCAGTGCCAGCACTTGTGTATG  
TTGGTGGAGGACCAGTGGATTGCTAATTTACATGTGGCCTCTATTTGCTGTGGTGTCCCCCAGGCCAGGCACCTCAGC  
CAGTTCCTTAATCAAACAGAAAAGCTCAACATTTCCACCTGGCTGCAGCAAGTAGTCTTTGAGTTGAAGCACCTGAGT  
GGGACAGGTGCATACAGCAATGTCTCTCTTCCCTTCTGCAATTTCTGGAATGTGCTCTTTGAGACAGTTATCTCCAC  
AAAGTTAARAGTACTTTCATTGGGCTGCTTATCGATTTCTCTCAGTCAACCTGGCCAAAGTCAAATCTATCCACATCT  
GTGAGTGGGTCACTTGTGGGGCCCCCTTTCTTCCATGATGGGAGGCTCTGCAGGTGGGGCATCTTCCCCCTTTTTTA  
CAGTGCAGACCCAGACCAAGCAGGGGTCTCTGGCTGAGATGACGGACCCAGGCCCTGCATTCAACAGCCTCTAATCTCC  
CTTTCCAACCTTATGCCAGGCCCTCAGGCACCCACCTGCACCTGGAGATCCCCATTCTATGGCAGCCTCTAATCTTTT  
TCTAAGCTGTGTAGCTGGGCTCCAGGCACCTGCCTGTGCCAAAAGGCCCTTCTCTGCACTGCATCCCTCAGGGATT  
GGGAGTGTACTTCTTGTAGCACAGAAAAATGCCATCCAACCTGCTGTCAAAGGCTCATTCTTCTCGGTGCTCTGC  
ACTTCCAGCTGCTTCAGTGTCTTCTCCGTGCTCGTGGGGTACCCATCTACTGTGGCCAGGTTTCCAACAGAGTTCACC  
CTTGCAGCAGCTGTGACCAGGTACCACAACCCATGTCTGGCCACATTGCCAACCCAGAATCAGCAGGGACCAAGG  
CTCGCCACCTTGGGATCCTGTTCGTGATGCCAATTGTCAAGTCTTAAGTGGCTTCTAGCTGTGAGCCGTAGGTG  
GTGGGTAGCTGGAACCACTAGAGGAATCATGCACAGTTTCAACCTCAGAATGATGATATCCATGCCAAAGCAGTTGAAAT  
AAACCATAGGTACAGTGTCACTCGGTAGTTATACCTTTTACAGACAATAGTGGCTCTGAGCCAGTTACAAGCTCATGT  
GGGTGATCACCTAATGCGCCTTACGTGGTGTAGTTACATAATGTGCAGAAATGTGCACCTGCACCTCAAACCTTGCTGAG  
TCATGCTGGACCTGATGTCTGCCTCAGCCTATTGACTGCAGCGCATACATTTCTCTAAATCAGATTTTTAAATTTTT  
GCCTGTGAGATGAGGTATGTCTGTCACTATTGTTTTAATTATTTTTCTAATGTCTAGCAAAGTTGCCTATCTTCTCA  
AATGTTCACTATTGTTTTTTTTCTGTGAGTCTTGCATCCAGTTTGAACAGTACTATTTAATTTGTTTTAATGCTG  
TCAAATTCCTAAATAGTTGCTTATGTGCAGAAAGTTTCAACCTCAGAATGATGATATCCATGCCAAAGCAGTTGAAAT  
TTAAATCTTAGATAAGTAACTTTAAATATTCCAGTGTCTTAAAGTAAACATTTATAGTGAATTTCACTCAAAAATTC  
TTTAAACAGTTGTCAACCTTATTTATTTTATTATAATAATTGTAACCTTTAAATGTGAGATATGATAACCACTCTCTGA  
AATGTGACAACCTTGTCCACCAATGTTATTATGCCTGAAACATAAATCTTGGGGCCCTGCTCAGAACCTTTGCCTTCTA  
GTTTCAGTAATTATGAAATTAATTTTTGTGTTTGGTGTGTTTGCAAATTAACTTACCCTATTAACCTATAGCGTATATA  
CATTATAGATMTATTATTATAATTATTATATTTTTTAAATAAGCTTTATGCTCATTGGGCAGAACTGTATCAGCACAT  
TTTTTGGCAGAAATAGATTCACTAGACTAATACTCTGTTATAAATCCCTGGTAGCAATGTTGGGTAAATTCAGTGGACT  
AATAAATCTGTTATAAATCCCTGGTAACAAATGGTGGGTTTAAATGAGTAACATAAAGAACTTAGAATAAAACAACTTA  
AATATATATATATATATATATATATATATGAATAATATTAACCTTTATCTTATATTTGTATATGATGATCTGATT  
TGCAGAGGGAGAGAAAGAGACAGACAAATGGATAGACAGACAGAACGAGATCATTTAGACCATAAGGTTAGAAAAATAT  
TATGAGACTATGGAAGGTAAATGAATATGGTAGAGAGAGATGGAGCTGAAGATTATAATTCTTTACTTATGGACTGCTC  
CAGGATAACTTTGTTTGTATGTTATTTTAGCCTTCTGATATCAGTTTATATACTCTAAAACGAGTAGAAAAGAAGCATCA  
GTTGTATAAATATTCTATTTAAATATTGTCAAAGCAGGTCCATGCATCAGAAGTCAAATTAACCTCACTGGGGAAAA  
CTTTGAAAAGGCTGAAGGAAATGTACTTGATTTTTATAATGTAATTGGCAAAGGAAATGTAGTCAAATATGAGAGCT  
AATGAAAGAGTGAATGGATAAGTAAAAATCCACAAATAAGCACAATGTCAATTGGGCTGTTTCCCTTCCCTTACCAAAGA  
AAATTTTCATGAGAGTTGCTAATGAATAAGATCTGAACATTATATAACCTTTATAAGCATTTTCCCTCAACCATTTTTTC  
TGTTGAGATGTCAACAAGAAGTAATATATCATAATATACAAAAGAAGATGCATAGTGTATTAATAATATGCTACCAAT  
TAAAAATCGCTGGAAATATTTGGCATTGGAAATGATGAAGGCATAAAGAGCAGATCTTGTATTAGACAAAAACTAGGAA  
GTTATAGTTAGGTTGTAGTAAATGATGAACAATCCATTTTGATTGTGATTCCCAACTAGCTTTTAGGCAGAGCCTCAAC  
CACAGAACTCAATCCTAGTGGATAAAAAATATGCAGACAATTTGAAGGGAGTGAAGAGAGCAGAAAGATATGATGA  
AAGAATTGAAGATTATGCAACAGAGGAGTATTTACAGCCTGGCTAGATAAATGAATGGATATATTTATTTTTTTAATT  
TTTTTAGCTAATTTACATTGTTAATTTTATTTAACTATTATTTTTAAAAGAAGATAAATACTGCAGTGGAAAGAGACT  
TAAGGGATTATACTAAGGGCAATTTAGAGAATCTTGGGACAAAATAATGGTCTTATATCAACAAAAATTTCCCTGGAAG  
TGTGATATGTCAGCTTGCAGAAAATTTCCCAATGTAGTGATAAGAATTCTCTGAAGACATAGGCAGATTGAAAAGACA  
TGA: TAAGAAACAATGTGAGATACATTTCCATACCTACTGCAGAGGTAAAGCAGAATGGAATTTGTATCTTTTCTCTG  
CAGGTCTATTAGAGAAGACAATAGAGAACCCTCTAAGAGGTGATTGTCAAATTTGGTTAATATGCTGTGGTTTTGGAGTG

Fig. 6. 194



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CCTGCATTGTGAACAAGGGCACATTCATTCAACTTTCCACATCTTCCTTTCCCTGTAAATGTACATGGAGTTATGGTA  
CCTTATTAGGCTATTGTTAGTATCACATATAAACCATGTAAATTCCTACCTTATGCCTGGTTCAGTCAGTCTCCTC  
AGGTGGTAGCTATTGGTTAACCTATTCTTTATAACATAATTGAAATAGGTTATATGACTTTTAAATATCCAAACAGT  
CAGAATAGAAATATTGATGAGAAATTTTGCTTCATCTCAAAACAGTGTAGAACACACCAATGGAGTATTTTTCTCC  
TAAAAGGTTAATCAGGATATGACATTTATAGGATTTACAATCACAATCCTGATAACTGTGAAATATAATATCAGACTGT  
TTCTTACTATTTTATTTTAAACATTGACATTAAGTTAAATAATATATTTTGTACTGTAGCCTAGGATTTTATTTTCCC  
TGTATTGAGAACAAGGATAATTATTTTACAAATGAAATTTTAAAGGATTAGAGTGCCATAGACATGCTCATTGCTATTAT  
TAATGTGCGAATACTGGAGTTCTGCCATCTTCATGAATCCCCACATTACATTTTGGATAAAGAATAAGTTCTGTATAT  
AAATGTAGGCTTCAGAAGCTTTTGTGATTCTTTACCATATTTTATACAAAGGCTTTCTGCTTTCTGCTCTCATG  
CTAAGTACAGGCCCTTCTGTACTTTCCGGCTAAACGAGATGGCTTTTCATGTATAAACTCAGCTGAAAATTTGACTTC  
TTCATAAAACCATTCTGTTTCTATCCCTGACTCAAGGTCCTGACTTGAATTTCTCCGACTTCCCTGGGCACTGAGCCAG  
CATAGTTCTGGTTCTGTTGTWTAATTGTTTATATCCTTGTAGCATATTCAGATGCACATAGTCACCATGTCTCACCAG  
ATCAGAATCTCTCAAGGAAAGAAAGCATGCTCTCTTTCCCTAATAATCCCCAAGCTCTCAATACCATGCTGTGTCG  
ACAGAAGGAATCAGTTAAATCTGCTGCAATTGATTGGAACCTTTTCCCCCAGATTTTCTTTAGGCTGCTCTCTG  
AGAGTTCTGCTCTAAAGTAATGGAGACTTGGGATTGTATTCTCATTATGCTAATGGTTATTACTTCTTTATTTTGA  
AACTGGTTGTAGGATCTAAGCTAACCATGCTATTTCTGCATACCACCCAGCGATTCTCATTAGCAACTGCCTTCAAA  
TCGCTTACTCCCTTTGGTCTCCTCTCCCTCAGTAGGAGAAGGATGAGAGGAAGTTGGAATATTTTACTGAGATGAG  
ATCCTTGAGCACTTGAGCCCTGAGGCTGCTCTGGAATAACGTTTCTGTTTCTGCTGCTCCCGAGTTTTCACAAAGAGC  
TGTGAGAAACAAGTTTGTGACTAAAGAGCAGCTTCATCTGTAACCTCTGTTTCTGCTACTCCCTGCTGTGTTTCTGGC  
TATCTGGAAGCTTCTCAGCAGGGTAGCAAGTTGTTGGCGCCACTAACACCTTTCTCTTTCAAATTCATATTTCTCT  
GGGAGGTGAGTTTGCATTTTCAAAAATTTCTATTTTAGTGAAACCAACCCAGGAATCAGTGTGCTTTCAGTGTG  
AAATAGTGCAGAGACTTTTGTTCAGCTAAGGGGGTGCATTCTTTTGGAGAGTTTATGATTTTCTGTTTATAGAGA  
GTTCTTAGGAATTTTATGCTTAGCTGAAAGTATTAAACACTTTTCTTATTTCTCAACATGAATTTTCTTCCCGGG  
CTGCAGGGGAAAGGGCTCTGATCTCTGGTTTCTGCTCTAGCTTGTATTTTGTGAGTTTCTTACTTCCATGCAACT  
CTGTTTCTCAAGTATAAACTATTAGTTGAGTGGGTAGAAGAGTAGATGATCTTTAAAGCACTTTTAAAGTCTAAAA  
TGTTATGATTTCTGCTATCAAAATTCACAGCTTCTCAACATCAGATAAGGGTTGGCATGAGTGTGCTGAAAATATATTG  
GGTTGGAGGAAGGGATATCTCGATTAAAAAAGCCAGATGAGAAATTAAGACTTTTCAAGCAATGCTATT  
GACATAAACTCAGGGTGACTTTTCAAGTCTTAAGTAGAAGTGGAACGTTTCTTAATTAAGCTTAGGTAATACCTCTTTA  
TCAAAATTAATAATTTATGTTCAAAATTAATCATGAATTGACATAGCTAATTTGACCTTCTATGCTTATCAGAGTCT  
TTTTGGTGAATATCATAGTCTACATTAATTGAAGAGGATAAGGTACATAGGTGCTCTCTCCACAACCTAAGCCATCAT  
GTCTAATGTAGTAATGAAAGCAGATTTTGGACTGAATTTTGTGACTGGCAAGCTTTTGTACCAAGGAGCCACAACCTA  
TCATAAAGCCTATTCTCATAAGCTCCATAGACTCCAGCTTTCTGCTCCCTTAGACATGTGATAAGCGTCTTACATGGA  
AGATCATTTTATTATGCTGTTTGTGATTCTCTCTCTTTCTCCTTATTAGTCTAGCTAGTAGTCTATCTATTAATTT  
TTTCAAAAATCAGCTCCTGTATTCTTGTATTTTCAAAGGGCTTTTCATGCTTATCTCTCTCAGTTCTGTTCTGGATC  
TTGTCTTCTACTAGCTGTGGGTTTGTGTTGAGGACATGAACAGCACTTCTCAAAGAGACATTCATGCAAGCCAAC  
AAACATGAAAAAAGCTCAACATCACTGATCATTTGAGAAATGCAAAATCAAACCCCAATGAGATACCATCTCACACC  
AGTCAGAATGGCCATTATTAATAGTCAAGAAACAACAGATGCTGGTGAGGTTGTGGAGAAGTAGGAACGCTTTTACAC  
TGCTGGTGGGAATGTAAATTAGTTCAACATTATGGAAGACTGTATGGCGATTCTCAAAGATCTAGAACCAGAAATAG  
GATTTGACCCAACAATCACATTACTGAGTATATACTCAAAGGAATATAAATCATTCTGTTACAAAGATACATACACAGG  
TATGTTTATTACAGCACTATTCAAAATAGCAAGGCATGGAATCAACCCCAATGCCATCAATGATAGACTGGTTGAAGA  
AAATGTGTACATACACACCATGGGATACATGCAAGCATAAAAAGGAATGAGATAATGCTTTTGCAGGACGCTGGAT  
GAATGTTCTCACTTATAAATGGGAGCTGAACAAATGAGATCACATGAGACACAGGGAGGGGACATGCAAGCGCTCT  
GTCAGGGAGTGGGGTTTAGTGAGGGAAGTATTAGGAAAAGTAGCTAATGCATGCTGGTCTTAATACCTAGGTGATGGG  
TTGATAGGTTTCAAGCAACCTGTGGCACACATCTACCTATGTAACAAACCTGTGCATCCCGTGCATGTACCCAGAAC  
AAAAACAAAAAATAAAAAACCTAAAAAATCTTATTTCAAAAACAGGCTATGGGCTAGATGTGGCTGAGGGCCATA  
GTTTGTAAAGGCTGGGACTAGACCAACATATGATGTGACCATCTGTGGATGAGTTTCCACAAGACTGAGAGCTCCA  
TAAAGGCAGAGACTGTATTTTCTCATTTTATTTCCCTCAGTGCCAAGAAAAACAGTAATTAATAAATGTTTGTGTC  
ATTAAGAATTTATTACGAAGAGTTATAAAATCAATCCACTGTTTTCATTGCTATCTCTGAACATGTACTATGT  
CATTTTACTTGAAGATATTTATATTGAAATCTCTGGTTAGTGATGCTCACTTCTGTGTACAGCTAAGAAGACGTACA  
GTTTTTAAATAATGTTACTAAGTGAACAAAACTATTTTATCAAGAAATATAAAGAAATCTTTAACAAGGTTGAG  
AGGTTACTTTCATGCATTAAGTTTCTGCTATCTTGTGATGTTCTGCTATAAAACCTTACAGACACTATGTCTGTATTAC  
TGGTTTCATTGAAATTTTGCCTTATGATTAATCTAATTTGGTTTCATTGTCCATAATAAAGCAATTGAGCATCACT  
GATGTGSATACATTTTCTTTAGGTTTAAAGAAACCACTCTAATATTTTTCAGGGCCATTATTTTATCAAATATGTA  
TATATGTGTGCATAAGGAGARGGAGCTCGGAAAAGGATTTATATTTCTTATAGTCAATTTTATGTTCTTTCTACCCCTA  
CCACTAGCTCCACCATATTGAAAATATCTCTATAAATATGGGTTATGTCTTATAAGCAAAGGATACATCTAGAATTTCA  
TTTCTCTCTAAACCATGAAGCATCTCTTAAGCAAGATGCTAAACCTGAAACCTCTGTAGAGCATTTGGGTAGACT  
TATGTTCTCATTTCTGCTTAGAGAGATATTTCTAGTTTTCTTATTTGCTAACCTTATAATTTGAGCACAGAATGTC  
AGATTTGTTTCAAGCCCTTCGATTTAATCACATCATGTCTGATATCTAGCATTTAATTACCCAAATTTCCAGTGTGTT  
CAAGAAGGTAGGTCTGTGGTGGGTTAGCCTTAAGCTAGTGGCTGAAAAGGTCTTGATTGCCCCCAGATCTAACCTAGT  
CACTTCTGAGCTGAAACTCCCATATCACTGGGACAAGCGACCTGAAATCTCTAGGCCACAGCTTCTTCTGAGG

Fig. 6. 195

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GAAGCTGCAGGAAAAAGAACAAAAATGAGCTTTTGTGAAAGGATTAACTTGGGTGAAGAACATCCTCCATAACCAAATA  
AATGGAACCTAGTAACCCACATGGCCAAATCCCCAGGGCACTAGTGCTTTTGGGGATATCAGGGTGTGTATAGAATTTTCG  
TTTTTGTCACTTCTTGAAACATAAAAWAATCTCTGAAAGAGTACTAGTGGTCAAGGTACTAGTCTAGAGATGGACCAAA  
CAATCATATTAAACCTAATTTAATCTCCAGAATTTATATTTTGTAGATTGGTAGCACTACTATCTTCATTTTGTACTTTC  
CCCACTTCTGTCAGCTAGGATTCAAATACAGACCATCTAACTCCAGAGCACTGCCCTTTAACATTGTGTCTATAATCCA  
CCACTTTGCATAGTTGATCCTACAAGAGGATAAGTAGAGATCAAAGTAAGAAGTGATCAATGGATTACTATGTCAAGCA  
TGATTCCCTCAAACCTATTGGGAAGAATAAATACCATAACATGTATAGGGTGTGTGTACAATTCGCCACAGAAAGTTAA  
GTACATGATAAAATGGAACCTATTAATATTAGTAACCCAGATAGGTTCTGGGCACATTAGCAGGAAAGGTCTTCTTAATT  
TAAGTAAGGTGCTAAAGCATCTAATTTTATTAGGATTGTTATGAAACAAAACTAAATGTGCAAGAAAATATATTTTAC  
CGTAGCCTGGGGAAAATTTGTATGGTTTCTCTTTTCAAAGAAATCAATTTGGTAAGAAACAGCCTTCAATGGTCCATGA  
AAAGTGAGAAGTGTAGGGAATAAGAGGCTCTTCTCTATGTTTGCATTTTCAGGCTTGCCTTCTTACTTTTAAATTTATCT  
TTACAATTGCCTTCTGCTGGGTTTGTGTCTTCTCAGTTTAGGGAAGGTGACAAGAAAAGTCTGTTTGTGTGTAATT  
GACATGAAATGGTAGGCTTTTAACTCAAGGAGCTCCAGACAACAGTTTGGTTATTAAAGGAAGGGAGGACCTAGGG  
GAACAATTTGTTTCTGGCCTCTCTTCTCTCAGGCTTGAACAATCTTTTCAATTTACTATATTCTGCCACAGACACAG  
TCAATATTAAATTCAAAAAAGAAAAATCCCTCACAGAAACAGCTGTGTTCAATATACAGCCAGTTTACTCTGGCGAA  
TTGCTAGACATGGAACAGTTTCTATTTCTTTTGTGTTTATCCCTGATAGTTGTCTTGTAATCTGCCTTTTGTAAAT  
AAGGGAAGGCTGGTTTTTAAACAGCTTTGACTAATATTGGTAGTTGGAGTATTCAAGTATTACAGAGTTTAGAGAACTAA  
AATAAACCTGATGGAACACACACATATTTCAAAGGAAACATTTAAGGTGTTCTGTTTCCATTTTTCATTTTGTAT  
GTAAGTTGGATTATGATACTTTTATGTCTACATGTCTCTTAGTCAAAAATGTGAGAGACGCCATTCAAGTCTAGACTT  
GGACCTGCAATGCCCTTGTTCATGGACACCAACATCTCATGTTAATGTTTATTGCTGATCTGTACAAAAGGGG  
AAAAGTAGTTTTTTGAACAACAGAAAATACCAGTTAATCTCAGTGGATTGAGGAATTATAGCAAGCAATCCAAGTAA  
GGATTCTCTGAGAGTAGGAACCTCAAGTGTGTTATCTCAGTTTATCCAGTTTCCAGCACATGCTGGCACCATTAAAA  
TTCTCAGTCAATGCTGGAGAATTGAAAAAGAACTCTCAAAATTTGGATGACAAAATGACAAAGGTGTCCCCTGATACAG  
AAATCTGTCCATGGCAGAAAGATTAGTGATTGAGATATGGTGTCTATCATTGTAGATGATGGTGTCCCATTAAAGCATGT  
TTTCACTAATTACAATAAATGTTGAAAGAAGGAGTTTCACCTAGTATCCTTACTAATATCAGGGAATGGCCTGGGCTTT  
GGGAGATGAGAGTCTCTGCTTTTCAAGTTAATAAAGTAGGATATTTGTGTTTTTGTGTTTATATTGTTAAATACGACGGG  
TTAGCTTGTGCACCTACATAAATATTGTGTGGCATAAATAAAGGTGAATTTCCAAATATGTGCTCATAGTGTGACAATG  
AGTAAATGTTTCAATCTAATAATTGTAAGGTTAACTCCCTCGCACTCCTTGAAAATATCTTTTATTCAAATTTTTCGA  
GCTGGAGGTCTATGTTTACATTTCTGTTGTGTAACATGGCCTCCCTCTCTTCTCTGTCTCACTTTCTCACTTTCTCC  
CTCTTTCTTTTACTCTCTCTGCTCTACCTCTGACTCCTTCTCCTTCTTCCAGCTTTGCATCAGAGCCATGTAAGTGA  
CATTTTCTTGGTTCCCTCAGGACCTGTCTAATAGCAGGCAATATTAGATGATGATTCAATGTTTAAATGAATTTTCT  
TGAATGTATGTATGTTGCTTCAAGTCATTTCATGCACACATTGAAGAGGACAGACAGAGCCCTGCTGAACACCACCTAGCA  
AATCTCTCTCTAGTAGACCACAACAAGTCAATCTGTGCTCTTTGATTACAGTTGTTCAACCAAGTTACTAATCTAACTAA  
TTGTAACCTGGTTGAACAACCTGAACCAAGGGTGAAGGTGAACCAATTTCAATGTGAAGTCCGCTGGGGCAAGAAAA  
ACACCACCAGAACCCCTTCAATATGCAAGGGGAAAAATCTCTCAAGTACAAGCTACATGGTGCCTTTTGAATTTAT  
CATCAATTTGTAATGCTGTATCAATACATATGTATTATCTGTTCTTTTGGTAAGGGTTGTTTGAAGTATAAGTACTTC  
CTCCATTAAGGTGATACTAACCACATGTTAATTATTGTCTGAAAGTCACCAAGGATATGAATAATAAAAGTTTTAAAA  
ATAAGACCTGTTTCTTTTATTGATAGTTGTACCTCAAGGCTGAAGTGAGGTTTGCAATGTAAAGTTGTAAATGTGATGT  
GAAATAGACAATCTTTGTAGTTTATATAAGGCAATATATCCATGTGCAATTATGGTCAAAAACAGCAGACTTTTAAAGT  
GATTATTCTAAAGTTATTTTCTTCCAAAATAACTTTTATTACTCTTGATATCATACCATATTCACAAAACATTCTGGTAA  
AGCTATTGTCTCAGTGTGTGTCCTCAGTGAGACTCAGGGAACATTTCTATGTGACGCTTTAGGATTGAAGACAGTTCCAC  
GTTTTCTGAGTAATTCAAAACCTGTGTGAAGAGATTATGTTTCCCTTTGTCATATTGGCTGTGAAGAGCTTTTTCAC  
TATGATACTTGGATGCATTTTGGCTTTTGGGTTTTTGTGTTTGGTCTAATTTTTTTTTTTTTTTTTTTTTTTTGA  
GACAGGGTCTCACTCTGTGCCCAGGCTGGAGTGCAGTGGCACCATCATGGCTCACTGCAACCTTGACCTCTCTGGCT  
CAGGTGATCCTCCACCTCAGCCTCTCAAGTAGCTGGAATTACAGGCATGTGCCACAACACCAGCTAATTTTGTATT  
TTTTGTAGAGATGAGGTTTTCGCCATGTTGCCAGGCTGGTCACAAATTCCTGGACTCAAGCCATCTTCTGCTTGGCC  
TCCCAAAGTGCGGGCATTACAGGTATTAGAGGTAGGAGTCACTGCATCTGGCCATGGGAAACATTTTGAATGATACTT  
TGTTTGTGTTGTTGTTGTTGAGCAGGCTGGAGTGCAGTTGCATGATCAGGCTCACTGAACCTTTCTTTAATTTTTT  
TATTCTCTCAGCACGATTATAATTTATTTTAAAGTAGGGAATAAATTGGCCAGGCGCAGTGGCTCACACCTGTAATCCC  
AGCACTTTGGGAGGCGYAGGCAGGCAGATCACAAGGTCAAGAGATCGAGACCATCTGGCTAATATGGTGTGAAACCCC  
GTCTCTACTAAAAAATACAAAAAATTAGCCGGGTGTGGTGGTGGGCACCTGTAGTCCCAGCTGCTTGAGAGGCTGAGGC  
AGGAGAATGACGTGAACCTGGGAGGGGGAGCTTGCAAGTGAGCCAGATTGTGCCATTGCACTCCAGCCTGGGCGACAGA  
GTGAGACTTCATCTCAAAAAAAGAAAGCAGGGAATAATTAGTAAGTGCCCTAACTAATCAAAAATTGTTTCCAGGTGAT  
GTTGCTGTTGATGATGAAAACCTCTTTCACCTAGCTTCCCTCTTCACTTTTCTGTCTATTTCTATTGACCAGTGC  
TTTCTGGCCCTTGAAATGTGATTAACTTTTCCATGACCTCTATGTTAGTGCCACACCTGACACCTTTATGCCACTC  
TCTGCCTCCAGAACTCTGTGTCCATCTTATATGTTTTTACCTTCTGCTGGGCCTCAGGCTGAGGATGCAAGCTTGAAG  
GAATTGAGCTGTTTTTCAAGGGATCCAAGAACACATAGCATGTGTGAAGTGTACTAAAGCTTTGAGAGTTGTGAAG  
AAGATTACATCAACTATGCACCACACAGCCTTCTTGTCTGTGGTACCATCTCCTCACCTCTGTGTTGCTCCTCTTG  
GAGTCTTTCACCTTCCACAACCAGCACTTCTATTCTCACTGTCTGAGTGTGACTTTCCATAATTGTGAAACTCCTTGGGC  
TTATCCCTCACACTCATTCTGAATTTCAAGGAATGGCATTCTTCCATTGTGCTTACATTTGCTTTTCACTATTAAAT

Fig. 6.196



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GTTCTAGAGAAAAGCATTTCATTCACTCACTCACTCACTCACTTAAACAAAACCTGTATGGGTATCTACAGTACTAT  
GTTCTAGGTATACTGAAGACACTAACATAAATAATACAAATAAATACCTTTTCTCAGGGAATTTAGATTAAAGTAGTTC  
AAATTGGAGCAGGGGAAGCAAATATTTACGTAGATTATCAGGGAATGTGTAGTAGTGCCGTGATTAGCACTATGCA  
GAAGATTTTATGGGAGTGGCAAAAAGCAGAACCTAACCTTTTCTGGGGTGAAGAGTGTGACCTAACTGAGTCTTAAAG  
AATGAATGTAGGGTGGAGAGAGGAATRGGAAGAGCATTTCAGGGAGAGAGGAATAGCAGGAACAGAGACACTGATGCAA  
GGAATCCCATGGTATTTGTGATGAAGGGATGATTTAGTAGTTCAGTGACAAGACATGAGCCTGGAGATAAATAAGGTTT  
AGGTTCTGGGGACCTTGTGAGCCAGGTTAAGGACTTTGGGTTTCATCCTCAAACCATGAAGCATTCCAAGCAATTATGTG  
ACAAGATCAGATTCTAGGGGCTGAATGGAGAATAAATATGTAAGTGGCAAGATTGAAGGCTGGGAATGTAAAAGGTGGC  
TCCTGCTGTGGCTTGGGCAAAACATCATATAGGCTTGTAGCTAGCTTTGTGATTCTACGGGATTGAGAGGAGAATGCTAA  
TTTCATAAAATGTTTAGTGGATATGATTGGCATGTGAWCTGAATGCAACTGGAGAAGGGGACCAGTCAATTACTGAGTWG  
ATATTGGTAATTGATAAATAAGACCAAAGAAGGTGAGGTTTGGGGATAGGCAGTGTAAATTTTGGAGTAATAAGGGGA  
TTGAGGTTCTGTCCATGGCATTGGTGGGGAATCTAGCATGTAAATACATGTAAATAGATAAGTAAATATGCCTATACA  
TTTATATAAGATATCTATACACTTATCTCTCTTTGTTTCATTTATTAGGTGTGAAATCTACGTGATTTTCTCTCCC  
ATATTATTTTGGTATTCAATAAATGTGAATCATGAAGAGATAGCTGTTTATTATTAATCTCTGCAAGTCACATTCTTA  
CCCATTTTGATTGTAATAAAGGCCTATGTCGTTATTTAATTTTAACTTTTGGCATGATTTATAGAAGGAAAATA  
AAAGTGTCTAGGTATGATAGGCCAAAGTTGGGTTTGGTAAATAATAATACCACAAAATGTTTTCTATTTAGCCA  
ACTATGCCAAAGTTACTTTAATGTGTTTGAATTAATTGATTTCACTTTAAACCAGAAACAATAGAGACTGTAATCAC  
ACAGCCCTGCAGTTCTGAATGTTTTGTTCTCTCTTTTATTGGTTTTCTAGATATTCCTAGTTGGCAACAGGATAGAGTT  
CAGTAATGGTTATGCAATTTTCATTGTGCAGGGTATTAATAATTTGTGACCAGGGATCCAGGAGACCAGCTATTAGATTT  
TCAATGCACATATTAGATTAAATMTATCTACTCAAATAAAGGGATCCTGCCTGAGGCTGTCTGATCAATAGTCTATCAT  
TCCTGTGCAATGAAGCTATTAAGATTCTCTTAGGAGGTAGACTATCTAAATTGGATCTAATAGTATGGTATGATGGA  
AATGAGGGATATACTGATACTTAATTGGCATCAATCTGACCTTGATAAGATTTTGAAGAAATAAATACCTTTTGTCTAC  
AGGTTGAAAAGAGGTGTAAATAGTCCCTATTTTATATTATTGGTTCTTAAGTACTTATCAGAAAATGACAAAAGTC  
AGTGTCCATAAACAAAGGTTCCATTGATCTTTGATCACCAAATCATCATTTCTATCTCTCTTTTTTGTTTAGGTCAC  
TGCAGTCACCATTTACCTCCACCACCATCATAAATTATATATAGCTACCCTTCTTGGACACTCAGGTCTGCTTGTGTTTTG  
AACCAGACATTTCTAGCTCCAAAGCCTGCATTCTTAATTTCTGTCAGTCTTAATACCATCTTTTAAATAGAAGACCCCC  
ACAGGAAAAGCTGATTCTATAATTTAAAAATGATTGGGGATCCAATAAGTCATGATTCTATTTTATATAATTTTGGAA  
GATGTGGCCAGAGAGCTAACTCTTTTATTTTATTTTCTTTTAAATGTTGACGTACTTATAACCCAGCTATGA  
AGCTATAATTTATTTGCCACATTGAGTATGTTAAATTGTTTAAATTTACATAAATTTCTGATTCTTATTTCTCCCCCTCTCAAA  
TTCAATTTGATAATTTAACATACCTGCTCTCTGTGTTTCCATGGAATTAATAATAATTTTAAACAGAATTATGAGA  
GAATGCAATTTCCCAAGCTGTAGATCAATTGAGAAACAGTAGAAATGAAAAGGTTAAGAAATCTGCTTCAAAATCTCA  
AATGGTCAAAGTCATTGACATTGTAAGCTCTTCTGTTGACTCAAGCCTGGTGGAAAATGTAATGAAGAGGTACAAAGT  
ACACTGCATAATCCAGCAAGCTAATTGCCACTTTAAGGCCTCTTGAGCCCAATGGCCAAGTGAAACCTCCACTCTCAG  
GGAAATTAGGCAACTGCTAAGGTGGTTTTGTCAGTTTTTCAGAGACACAGAGATTAGGTTTTTCAGCCTTATATAGATCTG  
TGATCACTAATGATAGTCTGTGCTAATGAAGGTAGTTTTTGAATCAAATGCATATTGACTTAGGCTTTCAGCGCAGAA  
TGTTGATTCACTGCTGTCTATCCCTGTCAAGAGAGCTGCATATGTAATTATGGTTTTCTTGTGAATAGATTGCTTTGGG  
ACTGTCAAGCAATTTCAATTTCTCATGTTCTTGTCTATCTTTCAACCTCAAATAAATAAATAAATAGAAAAATATCTC  
TAAGCACTATGTGTGGCTGTCTATTCTTTTACATTTAGTGTCTAATGTTTTTAAACAAGTCAGTTTACAGGTAAAGT  
TTGCTGTAATAGGATTGAATGTGGGTGTATGTGGTGGTCTTCAGATCTCTTCTCTGCTTGACCCTTCATGTTGGG  
TAATAGTTTTTAAAGCGCTCATGCCAGAAAGTAAACCAACAATAGTCACTTCTCAAATATCCATGCAATGTAGAAAGT  
CCGGGGTCAAGATGATTACTATGTGATCTGCTTAAGTGGGAACAGGGCCATTTCCCTCGCCTTCAACACACTCAGATAC  
ATCTCAGCCAACCAACATTTTGTCTGTTTGAAAAACATGGCAGACTTTATCTGTCCCTAAAGAGAATGCTTTTCTCCAT  
CCCTCTGCTTAATATCTGTGGCTCCATTTAACCCTCAAGCCAAAGTCCAGTTTCTTTTGAAGACTTCAGGCAAAATT  
AGGAGCCCTTTATAGTGGGATGAATGCTTTCTATACTGTTTTTGAATATTTTGTAAACATTGGCCATATTAACTCCA  
TTTTTTTTATGGGTCTGAATCTTCACTAGACTAACTGCTTGAGAGAGGAGCATGTATAATTCATTTTTCATGTTTCAAA  
TGCTGAAACTGATGTCTATAGAGCTTCAGTATTTGTCCACTGCATAAAATCAGTAATAAAGGCAGGAAGTTTGTTC  
ATCAAGTAGGACCAAGGCTAGATCCATTGGGACAATTCAACAGGGCTTTTCATTGGTTATTCTAGCTGATATCAACCT  
GCCCTGACCTGAATCAACTCTGAGCCCCCTACCTAGGCTGTGTTTTCTTAGCAAGTACATAATAACAACCTCATCAGAATA  
GCAGAGATCTTGGTAACAGGTTGCCTGACACTGACTGATATGGGAAAATCCTGAACAGGTTGGACTGGAACTCTTGGC  
TCACAACCTGTGTGACCTTGGTCAAGATATTTTATCTCTCTGAGCCTCAATTTTCTCTCTGTTAAATGAGCATAGTGA  
AATTTGTGTTATAGTTTGTCTTGAAGAGTAAATGAGATGGTAAGTGTGGTGTATGTAGTGCAGGAACATAACAATTC  
TTGATAGATATTCAATTGAATACCTRTAGTACATAGAACATAGAAAGTCTCTGTTATTCCACTCCCACCCCAACACTT  
GCCCTTCAGGTCTCAGGTTCTCTCTCTCTGTTACCCCAAGAAAGATTAAAGCCCTTTGGCCCTCTATGTGCCTCTTTTAT  
AGCATTTAACAACATTAATTAATTGATTATGTAACTTTTTTATTTAATAGCTGTCTCTTGTAGAATATAAGCACATA  
AATTCAGGCACTATCTATTAAATGAATTTTCTCTAGTGCTTAGTACTTAGGTGGCTCACAGTAAATGCTGATTCAATGG  
ATGAATAACTTTTATTCAGTCTGCTCAGTGTGGCCTTTAATTTAGATTACCCCAAAATTACTCCCATCAGGAAGGCTTT  
CTTATTTCAACTTTCTCATCTCAAGATTAGCAAAACTACTCTCTTTCTATTCCCAAAATATCTCTCTCAGTTTCATTAC  
CATGATCAGAAAGTACTCTCTCTTGAATTTATTTCTAGACTAGATCTATTTGGGGTTTTCTTACCAGTGATTGTAAC  
TATTGATGTGGTCTTTTTTCTGTTTTTACTTCTCATATGTGTATCTTTCCATTAGTCTCTTCAACAGAT  
ACTTTCTGTTGTGACAGCCACTCTTCTAAGCACTATGGAAGGATTTAAAGCTGTGTGAAGCACAGTTATTCGGTCAAG

Fig. 6. (192)

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GAACCTAAAAAATAATACAAGTGACAAAACATGTGCAAGTTTGACTAAAGTATGAGACTGGAATAAATACCTTATAAA  
AACCAAGAGCTTCAGTATTTTCTGTCAGTTTTTTCTCTATTGTATTCTCAACTTTTACTGGTTTTCTCATCAAATAAAT  
GTGTTAAAGTATAACTCAGATCATTGCTTAGATGTACTTACTTTTCCAACAAGGCCCTTCCCTGAACATCCTATTTACCA  
TTGCAAAATGCATTCTCTCCACTAGCGCCATTCTTACCCTCTCTTTCCACATCAATGAATTTTCATAGCACTTGTCACTT  
TTTTTCATGCTGTATAATGTATATTAAGATATTGCTTATTGTCTGTCTCCCTTCAATAGAATGTAAGCTCCATGTGGGC  
CAGGATGTGTAGTCATTGATGTATCCCTAGAATAAGTGCCCAATTATAGTAGTCATTTGATGGACATTTATTAATGAA  
ATTATGAATGAAGTAGGGATTGGCAGTTATACACTAAGACTCTGGAATAATGGCCTGAGTTGAATCCTGGCTTTACCAT  
TCTTGGCTATATAATCTCATATTATTTACTTTTCCAGCTTTTCACTTCCAGATGCCCTACCTTCTAGGGTTGTTGGGAG  
GATGGAATGCATAATACATGTAACCAGCAAGTTCATAGTAACAAAAGTTGACTTTTTAAAAAGTTAACTTACTCTTCT  
TTCCTATATATGTGTAAATCATATTTTATTTTCTCATTTTAAAAAGAAGACAATAACTAAAGGTATTAGCACATAATGA  
TTCAAAACATAATATTTCCACATGTGAGTTGAATGACTTTGAGCCAGATAATATGAGTTGAAATCAGTTTAAACAATA  
TTAAATCAGCCAAAGAGCAGTGTCTCATGCTGTAAATCTCAGCACTTTGGGAGGCTGAGGCAGGTGGATCACTTGAGCTC  
AGGATTTTGAGACCAGCCTGAGCAACGTGGTGAAACCCCATCTTACAAAAATACAAACAACAAAAATAGCCAGGTG  
TGGTGGCTCATGTCTGTAGTCCCAGCTACTTGGGGGGCTGAGGCAGGAGGATCACTTGAGCCAGGAGGTCAAGGCTGC  
AGCGAATGTGTTTGTACCCTGCACTTCAGCCTGGACGACACAGACCATGTCTCAAAAAGAAAAAATAGAATAAAA  
TCAAAATACACACCATTTTGAATATGTCAACAGTCTGTGTAGTTCTTGAAGGACTTCAAGGTCCAATATGCATCA  
TGCAGAGAGTTGCTAGGGCCAGACAAGAGTGACTTGACCATTGGCCTGAGTAGTTAAACTATCAGATAACTAGTGA  
CAATTCGGCTATTTCAACAAACATGTTGCATACATAACGTGTTATGCACAGAGATGACATTTGGTATAATATTATGGCA  
ATAAAAGGTGCACTTCTGCCTTGGGGAAGCAATTTGAATATATCTGTGAGGAGCTAAGAGTAAAGAGGGGCCCTTGTA  
ATAGAGGGGTGGGTCAAGTGGGTAGCAGTTGGCAGAGATCTTACAGCAATAAGTCTCTTGAATAAAGATATGGATTGAGCTGC  
TTTTTCAAAAATGCAGAAGCATTATTGAAGCCCGATGTTTGGGTCTATGATAAATAAAGATATGGATTGAGCTGC  
TCATTAAATTTTGAAGAAAAGATCCTAAAGGTTAGAGACCATGGAGATTTCAAAGTGGCTGACCTTGATTAGATATA  
AGTGTAAAGTCAGATGGGTATTCTTGGGGGCTCCGACTTTAATAACAATTTGAAAGTTTCATGATTATGAGCACCTCTCT  
GTGCTCCTTGGTGGAGAGCTGACCTATGAGTAGTTACTGTGTGAATTAATGAACATCCTTCAGCAAAAGTTATTAATA  
GTAATGTTTGGTAAAGTCCTTTAGAAGTAGACTGTTATGTGTGTACTAGTTATAATCAATTAATAACCTGTGATTTG  
TAGGAGCAAATGGTCATAGGGATACAGTATACATTTAATCTTGTCTCTTCAACATCACCCTAGATCCATGGTCCCTTCT  
CAAGACATTTGGCTTTGTCTGAAGCAGCTCCACAGCTCTTCCAGAAATCTCTATGCGGAGCTCTGAATGTGGTCAAGAA  
GAAGATGTACTGGATGCACATTCCCTATCAGGAGTCTCTTAATAGTCTCCACCCAGTTACAACATATTGCTGTAACTCC  
CACACAACAGCTGAAACATCTTTTCTTCAATTTCTTTAATTCCTGTAGCATTGATGTCTCCACCGTGAATTTACATT  
TAAATGTAAGTTGTTTTGCATCATTTAATAGTTGTTTCAAGTATGAATGTCTTGCCTTCCCAAGAAGATTAAATAAGA  
TTCCTTTAAGAACAGAGGCTCACTGCGCAGTGCCAGACATAGACATAGAGTAAACCACAACCTACTGACTTCACTTCAAG  
CTGACCTAACCATCTTCCAGCGAAGACGGCCAACTGGTGTATAACTCATTTCTTCTGATCTGCACTTACTTTATAGAG  
GAATAAATACATGAGTTATTGGGAGTTTGTGAAGGAAGTGACTAGAATTTCAATAAAATAATAAGTTTGTGTTTGT  
TCATTTCTGTTTGAAGAAAGTCTGTCATGGCCAGATTTTGAATAAGGAGGCTGGGATTGGACAGGGGTGAAGAATT  
GTGTACAGACTTTGTACTGGAATAATGTCTGCCTTAATCTAGTGAATAAATATGACTGTTCTTTGAAGTTCTTTT  
CCTCCCGAGTATAAATTCAATGCTATTCTATTTCTGAGTTGCCTGTATTTCTTTAGCCCTTAAGGCATCAACCTTTG  
ATGCTTATTTTTCATAATATTTTCTCTCTTAGAAGTATCCACATATTCAAGTAGAATGGAGGTATAAATCCTAATCCAT  
AGACTACTCCGAGCTTATTGAAAGTGAATCTTATTTAGATTCTTTCTTATCTGCTCACTGACAGATCTAATGTTAAA  
CAGAACCTTATTATCATCACAAGGAAGTAGATTAAAAAATACTTTTCAAGTCATTTCGATTATCAACAAGTACACTCCATCA  
AATCTTGCTTAACCTTTTGGCAAATACTTTGCTCCTTGGATCTCTCCAGGTCTTTATCAAAATGGAACACATAC  
ATTGTGTAACCTCATAAATTAAGTTTGTGAGTCAAGTTTCAATTAATGTTGAGTCTGTTTGAAGTTTGAACAAA  
AAGTTCCATTGTTTCACTAAAATTYGCAAATAGTTGTGATTTCTTTGAGATCTGTCAGTTTGAATTTGAACAAA  
ACTGCTTAAACCTTATCAGCCTTCTTCTTTTGGCTTAGCTTTAATAACCACTTTTAAATATAAATCAGATCTATA  
AATAAATAGTGAAGAGCAGTGGAACATTGCAGGTATAAAGACTTTTCATGTTGACTATTTTGGTAAAGATTCTGG  
ACATTTGAGTGAAGTCTCTCATGTTTATTGGTTTATTTTACTCTGGCACCGCTTATGAAAAGGGGACTTGAATTACT  
AGAGGGTAATTTCTTTCTTTATTTTATATATTTTACTATTTTCTTCACTTATGTTGTTTATTCAAAAC  
TTGAAAACATATACAAATTTTCAAGGTCTTCTAGAGTATATTACATCATCTGATGAACAACTTTATAATTTTAAATTA  
GCAAAATATTCTCAACCTGTGAGCTTTAATATTATAATTAATGTGCACAAKCTGAAAACCTTTCTTGTCTACTATATA  
ATACATTAATAGACCTTAGCAACAACTTCTTATTGAATACCTTCTGTCCTGTCCTCTCTCATCTTTAGCCT  
CATAACTTTGGTTATAATTATGTAATGGTTAATATTTCATGTTCTCATTTGCAAAATGAAAAGTGAGGAAGAGAAATTAA  
GCCATTTGCCTAAGGTCAAGTCTGGTAAATCAACAGAGGCCTCAGAATACCTCCAAATCATTTCATGATGCCA  
GAACCTTTAATGCTACAGAAACAGCTAAAGCGATGCATTTAAATGTGCTTCTATGTAGGGCTTGAGCTGTATCTAAA  
CTTAAATAGAGCTCAGCCAACATAGAATCTAGTTTCAAGCAATCTTACAACATGAGATAACCATCTGATGTTTGATA  
TAAATGAGATTGCAGAGGAAACACATTTTAATACCTGAGGTGTGTGCTTAATCTTCTTGTATGATATTAAGGCTCAG  
TACGTGAGAGTAAATAGAGGTGATGGGGTTACTCTTAAAGAGATTACTAATAATGTTTATTGGGAAAAGATGAAGAT  
TTTAGAGGCTATTAAAGAACTGGTTCTGGGAAAACAGCCATACTTAAGAGTTCTTCTTACCCTACCCCTTTGGA  
ATTCTGCTTTGCTATAGAACCATGGTCAAACCAAGGCAAGCAGCACAAATTACATGAACAAAGAAATCAACAAATAAAA  
GCGGATCCTTAAGACCTCCCAAGAAGACCAAGAGCTCTCTTTAAACTCTGTAAAATACCTAGGTTCTCAAGTCTT  
CCTATGTCTTATTTCTTAACATAATTGCACTATCAATCAAAAATGGAACAAAGGATATTCTACGTATCAGAACCTTTTT  
TCCTATACATTAAGAAGAACTTTTCCCATGAATAGGTAATATCAGTCTAAAGCCAGAGGATGAAACCTATGAATT

Fig. 6.198

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CTTCCTATCATATATTTTAAACAAGAAACGTAAATATCTATGACCTACTTATAGCCAATTTATATTTTGCCCAGGTTGTT  
TTGTTTCTAACTTACCCCTCATATGGCTTAATAATGAAGGCCATAAATGTGCCTCTTTCTATCTCACCCTATGACT  
TGACATGTATTATAAAATGAACCTTCTATATAAAATAATATTTATTGAATGAAAGGAAAGTATTACATACAACTTTTCAT  
TATTATATTATTAAGCTTATTTTTTGCACATCATRGCTAGATCATCTTAAATAGTTTGCTCTGTCTCTTTCCCAT  
TTTTTTTTTATATATACTTTAAGTTCTAGGGTACGTGAGCACAACGTGAAGGTTTCGTTACATATGTATACATGTGCCAT  
GTTGGTGTGCTGCACCCGTTAACTTGTCAATTTACATTACGTATATCTACTAATGCTATCCCTCCCCCTCCCCCACTC  
CATGACAGACCCCGTGTGTGGTGTTCACCCCTGTGTCCAAGTGTTCATTGTTCAATTCACCTATGATTGAGA  
ACATGCAAGTGTGTTGGTGTTCGTCTTGCATATAGTTGCTCAGAATGATGGTTCAGCTTCATCCATGTCCCTACAAA  
GGACATGAACCTCATCATTTTTTATGGCTGCATAGTATTCATGGTGTATATGTGCCACATTTTCTAATCCAGTCTATC  
ATTGATGGACATTTGGGTTGGTTCCAAGTCTTTGCTATTGTGAATAGTGTGCAATAAACATACATGTGCATGTGTCTT  
ATAGCAGCATGATTATAATCCTTTGGGTATATACCAGTAATGGGATGGCTGGGTCAAATAGTATTTCTAGTTCAAGA  
TCCTTGAGGAATCRCCACACTGTCTTCCACAATGGTTGAAGTGTACAGTCCCACCAACAGTGTAAACTGTTCCCTA  
TTTCTCCACATCCTCTCTAGCACCTGTGTTTCTTACTTTTTAATGATTGCCATTTAACTGGTGTGAGATGATATCT  
CATTTGTGGTTTTGATTTGCATTTCTCTGATGGCCAGTGTATGATGAGCATTTTTTCATGTCTGTTGGCTGCATATAAT  
GTCTTCTTTTGAGAAGTGTCTGTTTCATATCCTTTGCCACTTTTTGATGTGGTGTGTTGATTTTTCTTGTAAATTTGT  
TTAAGTTATTTGTAGATTCTGTGTATTAGCTCTTTCTCAGATGGGTAGATTATAAAAATTTCTCCCATCTGTAGGTT  
GCCTGTTCACTCCAATGGTAGTTTCTCTGCTGTGCAGAAGCTCTTTAGTTTAATTAGATCTCATTTGTCAATTTTGGC  
TTTTGTTGCCATTGCTTTTGGTGTTTTAGTCATGAAGTCTTGCCTGTGCCTATGTCTGAATGGTATTGCTAGGTTT  
TCTGTAGGGTTTTATGGTTTTAGGCTAACATTTAAGTTTTAATCCATCTTGAATTAATTTTTGTATAAGGTGTAC  
GGAAGAGATCCAGTTTCACTTCTACATGTGGCTAGCCAGTATTTCCAGCACAATTTATTAATAGGGAATCCTTTCC  
CCATTTCTTTTGTGTGTCAGGTTTGTCAAAGATCAGATGGTTGAAGTGTGTAGTATTTCTGAGGGCTATTCTGT  
TTCCATTAGTCTATCTCTGTTTTTGGTACCAGTACATGCTGTTTTGGTTACTGTAGCTTTGTAGTATAGTTTGAAGT  
CAGCAGCGTGTATGCCCTCCAGCTTTGTTCTTTTGGCTTAGGATTGTCTTGGCAATGCGGGCTCTTTTTTGGTTCCACAT  
AACTTTAAAGTAGTTTTTTTCCAATCTGTGAAGAAAGTCAATGGTAGCTTGTATGGGATGGCACTGAATCTATAAAT  
TACCTTGGGCAGTGTGGCCATTTTCATGATATTGATTCTTCTATCTATGAGCATGGAATGTTCTTCCATTGTTTGTG  
TCCTCTTTTATTTCTTTGAGCAGTGGTTTGTAAITCTCTTGAAGAGTCTTTCACATCCCTTGAAGTTGGATTCTTA  
GGTGTTTTATTTCTTTTGAAGCAATTTGTGAATTTGGAGTTCACTTCKGATTTGGCTGTTTGTCTGTTATTGGTGTATAG  
AATGCTTGTGATTTTTGACATTTGATTTGTATCTGAGACTTGTCTGAAGTTGCTTATCAGATTAAAGGATTTTGGG  
CTGAGACGATGGGTTTTCTAAATATACAATCATGCTCATCTGCAACAGGGAGAATTTGACTTCTCTTTTCTTAATTG  
AATACCTTTTATTTCTTTCTCTGCTGATTGCCCTGGCCAGAATTTCCAATACTATGTTGAATAGGAGTGGTGAGAAA  
GGGCATCCCTGTCTTGTGCCAGGTTTCAAAGGGAATGCTTCTAGCTTTTGGCCATTGAGTATGATATTGGCTGTGGGTT  
TGTCTATAAATAGCTCTTATTATTTTGTAGATACATCCATCAATRCCTAGTTTATTGAGAGTTTTTAGCATGAAGGGTTG  
TTGAATTTTGTCAAAGGCTTTTCTGCTATCTATTGAGAGAATCATGTGGCTTTTGTCTTTGGTTCTGTTTATATGCTGG  
ATTACATTTATTGATTTGCATATGTTGAACCAGCCTTGCATCCAGGGATGAAGCCACTTGCATGATGGTGGATAAGCT  
TTTTGATGTGCTGCTGGCTTCGGTTTGGCAGTATTTTATTAAAGGATATTGTCATCAATGTTTCAAGGATTTTGGTCT  
AAAACTCTCTTTTTTGTGTGTCTCTGCCAGGCTTTGGTATCAGGATAATGCTGGCTTATAAAATGAGTTAGGGAGG  
ATTCCTCTTTTTTCTATCGATTGGAATAGTTTTCAGAAGGAATGTTACCAGCTCTTTTTTGTATCTCTGGTAGAATTCGG  
CTGTGAATCCCTCTGGTCTGACTTTTTTGGTTGGTAGGCTATTAATTATTGCCCTCAATTTGAGAGCTGTTATTGG  
TCTATTGAGGGATTCAACTTCTTCTGTTTAGTCTTGGGAGGGTGTATGTGTCCAGGAATTCATCCATTCTTCTAGA  
TTTTCTAGTTTATTGTCATAGAGGTGTTATAGTATTTCTCTGATAGTAGTTTGTATTCTCTGTGGGATCAGTGGTGTAT  
CACCTTTATCATTTTTTATTGCGTCTATTTGATTCTTCTCCCTTTCTTCTTATTAGTCTTGTAGTGGTCCGTCAAT  
TTGTTGATCTTTTCAAATACAGCTCTGATTCAATGATTTTTTGAAGGGTTTTTGTGCTCTCTATCTCTTCACTG  
TCTGCTCTGATCTTAGTTTCTTCTGCTTCTGTTAGCTTTTGAAGCTTTTGTGCTTCTCTCTCTCTCTCTCTCTCTCT  
GTGCTGTTAGGGTGTCAATTTTAGATCTTCTCTGCTTCTCTTGTGGGAATTTAGTGTATATAAATTTCCCTCTACACAC  
TGCTTTAAATATGTCCAGAGATTCTGGTATGTTGTGCTTTGTTCTCATTGGTTTCAAAGAACATCTTATTCTGCT  
TTCATTTCTGTTATGTACCCAGTAGTCATTGAGGAGAGGTTGTTTCACTTCCATGTAGTTGAGCGGTTTTGAGTGAGTT  
TCTTAATCCTGAATTTCTAGTTTGAATGCACTGTGGTCTGAGAGACAGACTGTTGTAATTTCTGTTCTTTAACATTTGCT  
GAGGAGTGCTTTACTTCCAATATATGGTCAATTTTGAATAAGTGCAATGTGATGTTGAGAAGAATGTATATTCTGTT  
GATTTGTGGTGGAGAGTTCTGTAGATGTCTATTAGGTCCACTTGGTGCAGAGCTGAGTTCAATTTCTGGATAACCTTGT  
TAACCTTCTGTCTCGTTGATCTATCCGATGTTGACAGTGGGGTGTACAGTCTCTCTTTATTATTGTGTGGGAGTCTAA  
GTCTCTTTGTAAGTCTCTAAGGGCTTGTCTTATGAATCTGGGTGCTCTCTGATTGGGTGCATATATATTAGRATAGTT  
AGCTCTTCTTGTGAATGATCCCTTTACCATTACGTAATGGCCTTCTTGTCTCTTTTGTATCTTGTGGTTTAAAGT  
CTGTTTTATCAGAGACTAGGATTGCAACCCACCTTTTTTTTGTGTTTCCATGTGCTTGGTAGATCTTCTTCTCTCTCT  
TATTTTGAGCCTGTGTGTCTCTGCACGTGAGATGGGTCTCTGAAATACAGCACAGTGGTGGGTCTTGACTCTTTATC  
CAATTTGCCAGTTAGCATCTTTTAAATGGAGCATTTAGCCCATTTACATTTAAGGTTAATATTGTTATGTGTGAATTTG  
ATCCTGTCAATTATGATGTTAGCTGGTTATTTTGTCTATTGATGATGAGTCTCTTCTAGCATGATGTTCTTTACAA  
TTTGGCATGTTTTTGCAGTGGTTGTTACTGTTGTTCTTCCATGTTTAGCACTTCTCTCAGGAGCTCTTCTAGGCCT  
GGTGGTGACAAAATCTCTCAGCATTTGCTGTCTGTAAAGGATTTTATTCTCTTCACTTATGAACTTAGTTTGGCT  
GGATATGAAATCTGGGTTGAAATTTCTTAAGAATGTTGAATATTGGCCCCACTCTCTCTGTTTGTAGAGTTTCT  
GCCGAGGGATCAGCTGTTAGTCTGATGGGCTTCCCTTGTGGGTAACCGACCTTTCTCTGCTGCTTAAACATTT

Fig. 6.1199

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TTTCCTTCATTTCAACTTTAGTGAATCTGAAAATTATGTGCTTGGAGTTGCTCTTCTCGAGGAGTATCTTTGTGGCAT  
TCTACTAGAGGGTAATTTTCTTTTAGGGTGTATATAATTATTTTAAAAATTGATTTCATTGGAATATGTTATCAATGTCAA  
AACATGAGATAACTTGATGATTATCTCTTTATGAATTTGAGGTGCTGAGTATTTCTTGTTTTCAATTACAGCATTCTT  
TCAAATAGCCAGTCTCATGTTTCTATTTCTCTCTTAGCTGCTTCTTTCTTAAATATTTTGTGTGCTAATGAGAACCTCTA  
CCAAAATGAGTAAACCAAAGGGCTGAAGAAAGTTGAACCTGTTAAATGGTGTGTTGTTAATTGCTTCTTCAATTACAGAAGG  
ATTTTATATGTTGAGTAACATGCCATTTGAAGATTGACAAATCCATCCTCTCCTTGGTAACTCCCGAGTCATTGTGGTC  
TAGATTGATCCATCATCTTTCTCACTTAAGAGCATTAGTTCTCACCTTCAAATAATCAGCAGATTAAAAATAGTGGTAC  
ATAGTCATCTGTAGGAAGAAAGAAATAAGCTGTACAGTAGAGTGCTCTGTGGGTAAATATTTGTTGTGTTGAGATATAA  
CCTGTGTATATTTATTAATATCAGTGACATTTCTTGTCTTATTCTTTCATTCACTCAACAGATATTATTGAACAGCTG  
CTGTGTACTAGGCATTGTTTCATTTTCCCAAATTTCTAAAATTGTGATCATTTCTATTTTAAAAATGATTATTTAACAAA  
GTACTGGTAATGATATATATCTTTATTTCCAGTGGGTTTTGGCAATATAGCATAAAGATCATGAAAGTGGGCTCTAGA  
ATCTGAGAGCCTGTGAAACCTTCAGCTCCAACACTTCTAGTTGTGTGAGCGACTTTAGGCAAGTTAATGAACCTCCCT  
AAGCTCATTTACTTCATCTTTACAATAGGTATAATAATGACAATCCATCCTCATGTCCATCTGCTCAATAGGAGTAAAT  
AATATGCAAAAGCATATTGCACTGGGCTTGGCAGGCAAGTAATCCCTCAATAGATGTTAAATTTGCTGCTGTTATTAAAT  
CATAGTTCTTGCTTAGTTGATTGTTATAATCTTTTTCAGTATTTATTGAACAAATACCTATGAAGTGTACTCAGAGTAA  
ACTTGGACAGTGAGAGACACCACCATCTGGCCTGTGTGTCATAACAAAAGCCTTAAAACCTGGGTCTTGGCAATGGTG  
AGGGGAACAGATGCTCTAACTGCCCTTCTAGAATGTGTTTTTCTATGTGTCTAAGCTGCGATGAATGTCACATAATGTC  
ATCTCTCTTTCTATTTTAGGTAAAGTACATCACCATTTTGAACCTCTGTGCAGATGGGTAAGTCTTGTCTGCTGGAACCT  
TTCTGTGTGCTAGTCTGAGGATCTGGATCAGACAGTGTGCTTATCGTGGTCAAGAAATGCCCTTATTTTATTC  
AAGCAGAGATCTGGAAGGTAACAGAATTTCCACACATGCTTTCCATCTCTGTTTCAAAATCTTGGCAGAAAAA  
ATCTGTTATTTTAAATTAGATAAAATGCTATGTTAAATAATTGAAGATTTAATTTCTTACTCTGCTCAATAGAGGCAGA  
GTAGTTTAAAGACTTGAGAAAAGAAAAACAATGTTTTRCTTCTATTAGAAATCACAATAATCTCTCTGAAGTAAACA  
TACAAATCTTTGTTTTTCTGCTTTCAAACAGGGAATTTTTCAGTGCCTAACAAACAGGTGTTTCATGATTAGATTA  
TTAATGAGAAATAATTTGTATCAAATAGAAAAGTGACAAATGGCCCTGCAAGACCWTGTGTGCATAATATTGTAGAA  
GGAATTCCTGTTATGACTAAGAGTTGATGTAGTTAATTTAGTATGTCTAAAGTTGGCTGTAATCTATCACCACAGAAGA  
GCTGGAAGAAATGATCTTAAATCACAAAGGATTTAGTAAAGACCTACGTGAGCTGTGAAAGATGATTAAACTATGAAAT  
AGTTCTCAAAAGGAAGTTATAAATTCCTTGCCACTTGTGAAATCTAAAACTACATAGACAGTTATGTTCTRTATTAGAA  
AATAAAGATTTATCCTGCCTTGGCACAATGTATTGAATTGGCATGTTGTTCTCAGTAACAAAGTCCCAATTTGCTTCAT  
CAGCTTTAATTCCTTATTTACTCCATACATACTCTATACTCTATGTGTTAGTCTGAGTCTTGAAGAAGCCCATGCCAA  
AATGGGATTAGAAATGCAAGAATTTTAGGAAATGCCCTTGTAGAGGAATATAAGGAGGGAGCCAGTTAAGGCTGAGGGA  
AACGTCAAAGCATGATCCAAGTTTGACTCTGAGTAAAGAAGGGAGAGAGAAATGGTGAGAGCATCCTTGATTGGGCTAG  
CCAAAGGCATATGGGAGTCTCAAGCCAAAATCAGCCATCAGAGGAATCCTGTTTCCAGGAATGTGTCTGCCACAACA  
TGCCCTCTGTGCTCAGTAAATACCAGGAAGCAGGGCATGGGAGGTATGGCCTTAGCTAAAATGTTGCAGTGAATTTAG  
AGGCATCAGTTGGGGCCCTTTGCTGGTTATAGTTTCTTATAGTTGGAGGTCTGCAGCATCTCTACGGCCCCACACAGA  
GACTGTTAGATCTTGGTTCTTTCTGTTTCTTATTTTCTATTACAATGCCCTCTATCTCCACATCTTACTACTCTTCAT  
GCCCAAATCAGTTACCCTTCTTCTCATGAAGGTTACTCTGTACAACCTAGTGGCTAATAATTACCATTCTCTTTGTAA  
TTCAAAAATTTCTGTATTTTCTGTGATATTTATTGTTTTTGTATTATCCATTTATTCAAAAAATGGTATCGAGAGCTG  
CATTTGTGCTAGCCACTTTTCTATGCTCTGTGGGGGAGAGGATCAGAAAAAATGATAAAACATGACAGTCTAATGGAA  
AAGATAATACTGTAGAATACATTAAATATGACAGAAATGTTGAAGTATGAGCAAAAGATATGAGGAGACAGAAGAAG  
GAAGAATAACCTTTTGGGAAAGAAGGGAGGGCAGTGTCTCAGGAGGGATGGAGGATTTAAAGCAGGACTTGACATTGAG  
TTTTGTCTTGGAGGGTGAAGTCTCGTTAGGAGTTGACAGTGTGAATAGGCATCATTTTCAAGTTCATGTTTATATGAAG  
GAGCATAGAAAAGGTTTGTAGTACAGAGAGCCTTGCATGTCATAGGGAATTTATGGGATTACGGTCAAAGAGAAATCTG  
CAAAATTGGCCTAAAGCCAGATTATATGGGCATCGGGCTTGGCAAGTAGTTTGGACTTTATTCTATGAGCCCAATCC  
AATTCAGAACATCTCAGAGTCATGTGGCCAGGCTGAAATGACAAAAATATTGATGTATATAATTCTGTTATGGCATACT  
AAAATGGTATGATTCTACCAACAAAAAGATGGTGATACTATATATTTAAATATGTTGTCTATATCTAAAACTACTA  
ATAAATTACAATGAAGAAATCACATTTTGATAAAAGAGATAAAATATAGGGCATAAGGCCAAAATGTAATGGAAACGA  
TTAGCAGACTCTTAATCTCAGGTGTGAGATTGTGTCACGAATAGCTATTTTCTGCTCGATATATATTTACTTTCTGTAC  
AGTGTGGTTATAAAGACATAACTGAAAAATCTAGTTGCTCTGAAATATGTAAGGTATCAAAAAGCAGGATTTTATGCT  
GAGTGTGCTTTATAATATTTGGAATAAGTTATAACTAGTTGAAGCATTACCAGAATGTCACTTGACAATTTCTAACTT  
TAAATATCTATAAGCCATAAAGTTAATATATTATATTGATTTTGAATTTTAAATTTGATGTAATTTAGATTACTGTAA  
AGTGGCAAGAATAGCACAAGGAATTCAGATACCCCTACCAATATCCCCAAATGTTAACATTTTACTACATTTACT  
TTATTCAATCTCTGCTCTCATATCTACCTTTCTGTCTATCTAATCATCTATGTATCCGCTACCCATACACAGTTTC  
CTTATTGATACACATTAAGAGCAAGTTGCAGACATGATACTCCTTTGCTTCTAAATACTTAAATAATTCCTAAAAACAT  
GGAATTGATCATAGGTACAGTTTCAAGTTTAAATTAGCAATTAACATGGATAAAATGTTGTTATCTAATCTACA  
GACTTTATTCTAAATTTCAATAATTTGCCAATAATGTTCTGTAGCCAATGAAATTACAAAATCATGCTTTTCAATC  
AGTTGTCTATGCTCTTTAATATCTTTAACTGGAGCAGTTTCTGAGTCTTCTGTAAGTCTTCTGTAAGGACTATTTTCAATC  
TTTTTGGAGAATTACATGCCAATTTGTTTGTACACTCTCTGATTTATTGTTGCTGCTATAACAACTACCATAGTCTT  
CATGGTTTATAAACAACAGAAATTTTCTCATGTTCTGGAGGCTGAGAAATCCCATGATCTGTGCTAAGCAGATTT  
TCTGTCTGGTGAGGATCAGCTTTCTAGCTCATAAATAGCTGTCTCTTGTGCTGTTTTTACATGGCAGAAAGGAGAGA  
GAGTTCTCTGGGCTCTCTTTTATAAGGCATTAATCCCATTCATGAGGGCTCTGTCCCATATCTCATCACTTCCAA

Fig. 6.200

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AGGCCACACCTGTAAATACCATCATATTGCTGATTAAAGTTTCAACATATGAATTTGGAGGCAACGTAAACATTTCAGTCT  
AAAGCATAGACTATCTTCAATTTGAGTTATTTTGTGTTTCTGGGGATGATAGTCAGGTCATACAACCTTGGGCAGGA  
ATATCACAGTAGGGATGCTAAGTCCCTTATATCCAGAGGTAGATGCTGTTGTTAGTACCATTACTGACAATTTTAGCTT  
TGATCATTTAGTTCAAGTGGTGCCTACCAGATTTCTCCACTGTAAAGTTACTATTTTCTCCTTTGTAATTTAAAGCA  
TTTTGTACCATGATAATATGAGAGCATGTAAATATGCTGTTATTTCTCAATTTCTTACCCCAATAGCTTTGGAAATCCGTT  
GGTGATTCCTGTCTAAATCAGTTACTTTGTGTTATTTATGATGTTGCTGTTTTCATTGGTTTAATGCTGCCGTAAACAGAT  
ACCACAAACTGGGTAAATTTATAATGAATAGAATTTATTTGGCTCATGGTTCTGGAGGCTGAGAAGTTCAGGATCAAGGG  
GCTGCATCTGGTGCAGTCCTTTTCTGCTGCATCATGACATGATGAAGGTATCACATGGGCAAGAAATAGGGAGAAG  
GGGGCCAAACTCATTTTTTTTTTTTTTTTTTTTTTGGAGACAGAGTCTCGCTCTGTCAACCCAGGCTGGAGTGCAGTGA  
CGCTCGGCTCAGTGAACCTCCACCTCCCGGGTTCCGCCATTCTCCTGCCTCAGTTTCCCGAGTAGCTGGGACTACAGG  
CACCCACCACCACGCCCGGCTAAATTTTTTGTATTTTGTAGTAGACAGGGGTTTACCCTGTTAGCCAGGACGGTCT  
CCATCTGCTGACCTCGTGAGCCACCACCTTAGCCTCCCAAAGTGCTGGGATTACAGGCCCTTAGCCACCGCAGCTGGCC  
CAAACTCATTTTATAAGGAACCTACTCCTATGATAAAGTAATCCATTTCATGAAGGGAATGCTCTCATGA  
TCTAATCATCTCTTAAATGTCCCAACTCTTAACACTGTTGCGTTTTGGTCTAAGCTTCCAAGATGTGAACTTTGGGAGA  
CATATTCAAACCATAGTGGTTTGCTAAGGGGAAATCTGTAAATTTTCATCATTTCTTCTCTTTTATTAGTTGGCTTTCT  
ATTATGCATAAAATGTTTCTTCGTGCTGTTTCTGTGTGGAGTCATGAATTTCTTTATTTAGCAGGTTGTTATCCTTTA  
ATATTGTTGGTTAATATCATTATTTATCTTAATCCTCATACTGTCTGGATTGGACAGTACAAGGTACTTCTAGTTGA  
CTCCCTTGTCATTTTAAACAGTTACTATCATTTCTTGAGTACTTTTTTACTTTTTGGTTTTAGATATGAGACTCTTGTT  
CTTTTATCCAAGCCTTGAATCAGCTACTTTTATAGGGCTCTCTGTTTTCTTTTCAGTAAAGAAATGGTTTTAGAAATCA  
AAATTTGGAGAGTAGGTGTGCTTTTGTCTTAGGCTCTTTAGTAGACATATCTAGGGGAAAGTGTATGTATGTACAT  
ACTCATATATAAATGTGTGCATATATATGCATACCCACACATACCTATATCCATGGGTATATTTCAGATATTTGTATACA  
TTAAACCTAGGATTTTCAATGATAATCCATCATTGCAGTGCTCATTCTGTTCTTCTCCATTTTCGTATCTGTAACTCT  
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TCAGTAAGTAGACTTTTAGCATTATTTATGTTTTATATGCCTAATTTCTGTACTCAAAATTCAGTTGGTTAGTTCTTTTC  
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AGTTAGAAACACAAATGTAAAAGTGTATTTCTGACTTGGAGTTAAGTTAGGTCTTAAATATTAATAGCTTCTTCAAA  
GATACAGCAAAATAGAGAAACCTGATAATATTTATGTTCTTGAGAGAAATTAATCTTTCTATAATTAATTATAAGACTTTT  
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CCAGCCTTGCCATTAGGTATCTTTCTCATACATTACTTACCTTAAGTTGGCAGGAGCTTGATTACAGAAGATAACTGT  
CATTATCTCTTTGTGTGGAGTGCATATATTGTGGGATGTCTATAGGAGTATTACCCAAAGGGTTGTATTACAGAATT  
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Fig. 6.201

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3NSDOCID: <WO\_02074992A2 | >



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[illegible]

Fig. 6.203

[illegible]

Fig. 6.204



[illegible]

SDOCID: &lt;WO\_\_02074992A2\_I\_&gt;

211/375

TACAGATGTGAGCCACCTGCTTGGCTGAACTTTTCTTGAAACACACACACACACACGAACACTCACACACACTTTT  
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CAGGGGCAGGTAATAGGTGAGCAACTCTCAACTCTTTGTATATGTTACTATAGTCTGGAAGTAGCAAGTACTGAAAAA  
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Fig. 6.266

[illegible]

Fig. 6.207

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CTCTAGTATAATTGATTGTAATCTGTCAATTTATTACCGATAGTTTGAAGAAAGTTACATCAAGTTTCTCAATTTTGGG  
GGTGATTTTCATATACATTTCTAGGACTGTGACCAAACTTGGGAAATATCTCTATCAAATGCTTTTCATTTGTGAACCTGT  
AAGATTTGGAAGAATTTTCAAAGAGCAGTTCTCTGGCTTTATATGTTTTGAACATTGTGTCTCTTCACTCCACACAGAG  
TTGTGGTGCCTGAAGCTCTGGGCACATTGATTTTGGAGTGATCTCTGGGCTTGCACTTTTCATGTTACCAGCACCATGGT  
AATCAGGTGTGTTCTGGAAGCTACACCCAGACAGCCAGCAAGAACCTAAGGGTACAGGGAAGAGACTGAGAACCACAA  
GAATATAATCACACCAAACTGAACTAAATGAATCTTTAACTCAGTTTCTAATTAGCCAGATCCCAAAATGGCCACAG  
TCACCCAGTGCTAATAACCAAGGGAAGAGTGTGATATAGGCAAAATCAGTACGTAGACATTGATCTTAAACTTCTG  
CAGTTAAATGTCTCACTCATGCAAAATTTCTAAAAGCAAGGAGCATGCCATCCACCCCTCGAGCCTTTTCCAGTGCC  
TTAGGAAGGAGCTTGTGCAAGTGAGGGGCCCTGAAGCTTCACTTCCCTAGCCTCAGGTAATCCACCTCTGTGGTAG  
ACAGAAACATTTCTAGACCAAGAAATCTGTTTGGCTTAAGGAAACACAGAAGCTGTCTTACAGTTAAACAGAAATAG  
TTCTATTTTTTTCTAGAGTTTCAAGCACCATTCTCAAGGGGTATTTCTTAGAAGTTTCAATTTAGAGTCTCTCTCCACA  
AGTTCTTTTTGATAGCCAATAATTCAATGTCTGCTACTTCTTAAATCACTCCAGTCAATGAATAGCATAATCTTTT  
CAGGGGGCAAACAGCTGGGCTCCAGTAGGCTTTAAATGTTTCAATTTTGTGACTGTCATAGGAAGAAGT  
AATCCCTTTCTATGTGAAATATCCCTCGATTAAATTTAAGAACCAATGGCATTGTCTGATAATGGGATGAAAGCCCA  
ATTCACTGAACAGAATGTGCTATTTGTAACCTGGATTATCTTTAGGTTTTTGGGCATAGTCTCGAGAAGCTGAGAAT  
CTGTCAATTTATTGATTAAATACACGTACAGATACACACGTTTACATTAGAAATAAAATGTTGTAAGCTCAAATAGG

Fig. 6 268

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CAGGGTATTTCACCTGAAAGCCTGAAATAAATGTGATGAGAACCCTATGAACCTAAGTTCCAGTGTAAACAAGTGGGTAA  
ATTCTCAATTATAGAACTTCCAGTGAGCAATGCAGCATGACTGTGGGACCATAATTCCAGGAACAATCTGCAGAGCAAAA  
TATAGAGGCACTAATTTTGTATATTTGCAGCCACATACGTAAATACCAGATTGTCTCTGTTGTTCTGGCCAAAGAT  
GAGTCAGGTACCTCTGATATAACCATTCTAAAAGACAACAATGGATTGAGAATGTGAGACTGAGAGAAATCCTAGAAG  
TCTGACCTTCAGATCAGTTAACTGTAGATCAATAATCCATTACTCAGACCAACACAGTACCAAAAAATCTCTTCAGCT  
GGCTGCCAAGGTACTATTTTATCTTAAATAAGCTGGTTGAGAGCAGTCAATATAGATACATTTTCCCCTGACAAATTT  
GCTGATTCAGAGAACATGCAACATCCAGCCACGAAATAGATAAAGCTCAGGCCCTGCCCTGTAGAATATGGTCACCTGGC  
TTTCTGTTCTCTACAAATGTCTACTGGAAGAATAGCCCTTAATCCCTTAATGTTTATCTAAACCAAGGCTTGTCTCT  
AAATTCTCTAGACTCTATCTCATGCATTATTACATCTCTCTTGGCATACTTCTCTTCTTGAAGTGACATAACATTTATAT  
ACCTTCTACAAATGTTGGTATTATTGATATTGAGGGAGGGGGCAGACCCAGGTCTATGGCCTTATGTATTATTAGTGAA  
TTACAATTTCTTAGAGTAATAGGCCAATGATTAAAGTCACATGTTAGGAAAACCTTAATCCACTAGGGAACCTTCCAA  
TATTTTCAAAGTAATTTACTACATTTGGATGCAAAATTAATCCATTACTGTTTGGTGGTATCCATACCTTGCTTTCTGT  
AACCTGAAGAGATGTAAATGTAAATCGATGCTAATTGTACCGTGCTTACACAAAGAGCTAATTTGAGTAATATCCTATC  
CCATCAGTTCATTTTACCATAACATTTTTTCTTTACAAATTTGTTTTTAAACTCCACTGGAAAAAATATATAATAA  
ACTACATGTAAATTACACAATTTAGTAAATTTGATATAGGTATACACATCTGTGAGAAAATTACCAAACTGAGATAG  
TACACAAATATATATACCCCAAAAGTTTCCCTCGTGTCTTTGTCATTCTCTCCCTCCAGCTTTTCCCAGAAATTTAC  
CTTCTCAGGCTGATCAACACTCAGCTGAAGACTCAAGAGGGGGCTGTGCAGATGTCCCTGAGTTCCCTCTCTGGGCC  
ACTGTCTCCTCTCTTTTCCAGCAATTTCTAGTTACCTTGACCTCCCTGAATTTCCAGCTCCCTCTCACTTCCAGGAG  
ACTTTTCCAGTCAGGAGTGATCCCTCCTTGTGCTGAGCCCTGGAAGCTCTCCAGCATGTACATCTGGGGCAACCATATA  
GGCGTCATCTCATTTGATTTTCTCTAATCACCATGCTAAGCTAAGTGTGCTTAAGGTCTGAAAACCTGTTGTTTC  
ATTCAATTTGTCCAGTTTTCATTCTTTTATGAGCAAGCATAAACCTGACTCCTTTGGGCAAGAAGCAGAAGTCCCTA  
TAGTGACTTTATTTACTTTATTTGTTATTGTCAGCATTTGGAAAAAATGTAGAGATTGACTATTTTATACTATTAA  
GTAATTTTGTATATTGATTTTACCTAAACAGAGTTTATTAGAAGTATTTGTTATACAGCTTATAACAAATAATT  
GTACAAAAATTAGAAAAATCAGATGAACAAATTTTATAAGACTTCTCGTGGTTATAGAATGACTCTAACACCTTGTA  
GTGATTTTGTAGGATTTGTTCTTAGTGATGTGTTAGTCTGTTTTCATGCTGCTGATAAAGACATACCTGAGACTGG  
GAAGAAAAAGAGTTTAAATTTGATTTTACAGTTCCACATGGCCGGGGAGGCTCAGAATCATGTTGGGAGGTAAGACA  
CTTCTTACATGGTGGCGCAAGAAAAATGAGGAAGATGCAAAAGTGGAAACCCCTGATAAAACCATCAGATCTTGTGA  
GACTTATTCACCACCACGAGAATAGTATAGGGGAACTTCCCCCATGATTCAAATATCTCCACCGGGTGTCCCCCAC  
AACACATGGAAATTATGGGAGTATAATTCAAGATGAGATTGGGTGGGGACACAGAGTCAAACCGTATCAGTGATATAG  
TTTAGAGGGACATAGAAAATATATAAGTTTAAATAAGATATATACATATTGTTATTAAATGAAAACATTTGAAATTAT  
AAAAGTAGTAAATATTTTATAGTAAATTAATATATATATAGTAAAAAGTGAAGCTGTTTACTTCCATTTCCAGAG  
AAAACCTTACTTAAATTTTATATAGTTTTTCCAGAGTCTTCTTACACCTGAAAAACACAGTGGATTATTTTGTGTA  
CAAAAGAAAAGAAATCAATCTATATGTATCTCTTCTTACTTCTTTTCTTCCACTTAAATTCATACAGATAAACT  
TTACCATTTAAATGGCCTCTGGTGATTCTTTTATAAGATGAACCATTAGATAGTTAACAGTTTACTAATGACAGACA  
TTTATATTGCTCCCAAGTTGTTGCCATTGTTCAATTTATTTTCTTTAGTATTAATTCCTAGATAAGTTGCTACATCA  
AAAATAATGTACATTTAATATTGCAATAGTTACAAGGAAATCTGTAATTTTTCAGTAATATATAGTGCTACTTTCA  
AAAAGCTTTAAATTTCTGAGCATCATATTGTCTTCTAAATCTTTGACAAAAATTAATGTAAATGAATATGCTATTTAAT  
TGTCAATTTATTTTATTGATTATTAGTAAGATTAGATTAGATTTCAGTCTTTTATTAGCCATTTCCAGAGGATGAGC  
ATTCTCTGCCTATGGACTTTGCCTGGTTTGTATTGATGTGTTTCTTATTTCTTATTTTCTTATTTTCTTATTTTCA  
TAAAGTAATGAGATAAATTTTAAATTTTACATTTTAAAGACTCTTATTTGATTTTAAACAAAGTTAGAT  
YTATAGAAAAGCTGGAAGAATTTGAAGTTTAAACGATATTCGCTCTCCCTTTCCAGAATATGTGGCAAAGGAGGAAA  
AGAAGGGATTCTGAAGGAACACACGGGAAGTCGGCAGTGTGGGAGTGATGGATATGTTTATTCCTTGCTTGTGGTGAT  
GGTCTCACTGGTGATACATTTGCAGTAATTGTCAAGTTGTACACTTTAAATATGTGCAGTTATTTTATCTCAGTTA  
CATCTCAATGAAACTTTTTTTTAAAGTGGCACCAACATACATTAATAGCTTTCCAGCCAAAGTAAAACTGAGTTTG  
GTCAGAATATTTTGTGCTATTTTGGTTAGATTCTTCTGTCTACAGTTATAATGGCTTTCTAAAAATAAATAGGAAGCC  
GGAGAAGTCACTTTAACCCTCAAGAGTAGGAACTGAACCCATAAAAAAGTGCTTCCAGGTGAGACTCAGCTTAAA  
AAACCTGAAAAATAAATGTGACTTCTGAGTAGCAGTATATGGGAAAAATTTCTATAAATCTCTGAGAATGAAGTTGAC  
TGGAGACTACACAAGAGACAAAGAGATATAGAATTGCCTTAAATCTGAACCATGGAGTTACAGAATGATAATGGCATT  
TGATAAATTTTTAGAGAACTCTTGATAAACAGGCACACTCAAAAATAGCTTTTGTGTTGTTGTTGTTGTTGTT  
TTCTGTGCAAGAGGTGACAATTGAATGAGGTTCCAAAAAGTAGTGTGGGCTTGCAATTGCACACATATTATCAGGCAGGA  
TTTGTGCAGTAGAGAAAGGTGACTGAAGAATGTAGTGAAGGACATGCTACTGGAAGAAGCTGCCAAGTGACATACACA  
GGGCTGTGAGTCAGCCAGGGTTGAGGCTCTGTCCAGTGGGACAGGCTCTGTCTCCACAGTGGGGACTGCCCTGAGAG  
CTGGGTGCTCTGGTTTCCAGCATTTGATGACAAAGGCACTGTATAAATTTCCGTGAAATGGCTTGAACCTCACTTTGCC  
ATAAAGTAAGATAAATTTTAAATTTCAAACTTAAACATCTTGTAGTAAATTAAGGAGGAGGAAGAGAAAGAACAGGCA  
ATAAAAAGTTATTTATTGATTGATTGACTTAATGCAGCTAGCTGAAGGGTGAGAGGAAGAATCCGGCTCCAGAGTCTG  
AAAGCCAGGGCTCAAGTTTCAATTTGGGCATTTCCAGCTTTGAACAACAGAAAAACTGTTTACCTTTTCAAGACCT  
CAGTTTCTTATAGTCTGTAAATTAGCAATAAACTAATGTGCTTCCAAGTTATGGTAAAAATCAAAATATCTTATGC  
CTGTGTAAATCTTTTTTCAAAAAACAATAGACACTGCAAAATATTGGGCATTTCTATGATGATGTTTATTCTTCACTGGGA  
GCATTGATGGATTGATTGTTTACTTTTCAATAACTTTTTCCATATTGCTCTAGTTTTAAATTTGCAATTTTAAATTCAG  
TATTGTTTATAATAAGACAAAAGCTCTTCTTAAAGTTGGGGCATTAAATGTTAAAAAAGAACTGTTTACATCA

Fig. 6. 209

[illegible]

Fig. 6.210



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TGGTTTAGTCTTAGGAAGGTGTATGTGTCCAGGAATTTATCCATTTCTTCTAGATTTCTAGTTTATTTGTGTAGAGGT  
GTTTTATAGTATTCTCTGGTGGTAGTTTGTATTTCTGTGGGATCAATGATGATATCCCCTTTATC"TTTTTATTTATKG  
TGTCTATTTGATTCTTCTCTCTTTTCTTCTTCAATTGATCTGGCTAGTGGTCTGTTTGTAAATCGTTCAAAAAACAG  
CTCCTGGATTCAATTGATTTTTTCAAAGGGTTTTTCTGTCTCTGTCTCCTTCAATTCTGCTCTGATCTTAGTTATTTCT  
TGCCTTCTGTCTGGCTTTTGAATGTGTTTGCCTTCTGATTTCTTTTAAATTGTGATGTTAGGGTGTCAATTTTAG  
ATCTTCTCTGCTTTTCTCTTGTGTGCATTTAGTGCTATAAATTTCCCTCTAAACACTGCTTTAGCTGTGTCCCAGAGATT  
CTGGTACATTGTATGTTTGTCTTATTAGTTTCAAAGAACTTATTTATTTCTGCCTTYGTTTCTGTTATTCACCCAGTAG  
TCATTCAAGAGCAGGTTTTTGTATTTCCATGTAGTTGTGCTGTTTGTAGTTAGTTCTTAATCCTGAGTTCTAACTTGA  
TTGCACTGTGGTCTGAGAGACTGTTTGTATGATTTCTGGTTTTTGCATTTGCTGAGGAGTGTATTTTCCAATTAT  
GTGGTCAATTTTAGAATAAGTGCAATGTGGTGTGAGAAGATGTATATTCTGTTGATTTGTGGTGGAGAGTTCTGTAG  
ATGCTATTAGGTCCACTTGGTCCAGAGCTTAGTCAAGTCTTGAATATTCTGTTAATTTCTGTTTCTGAGTGGCTGTGT  
CTGATATTGACAGTGGGGTGTAAAGTCTCCCACTAGTATTGTGGAAGTCTAAGTCTCTTTGTAGGTCTCTAGGAAC  
TTGCATTATGAATCTGGGTGCTCTTGTATTGGGTGCATATATATTTTCAAGGTAGTTAGCTCTTCTGTTGCAATTGAACCC  
TTTACCAATATGTAATGCCCTTCTTTGTCTTTTCTRTCTTTTTTCTTAAAGTCTGTTTTATCAGAGACTAGGATTA  
CAACACCTTTTTTTTTTCTTTCTGTTTGTGGTAAATCTTCCCTCCATCCCTTTATTTTGTAGCCTGTGTGTGTGTGTG  
CACATGAGATGAGTCTACTRAATACAGCACATTGATGGGTCTTGACTCTGTCTAGTTTGCCAGCCTGTGCCATTTAAT  
GGGGCATTTAGCTCATTTACATTTAAGGTTAATATTGTTATGTATGAATTTGATCCTGTCTATTATGATGCTAGCTGTT  
ATTTTGGCCATTAGTTGATGTAGTTTCTTCATAGTGTGAGCGGTCTTTACAATTTAATATTGTTTGTGAGTGGCTGGTA  
TCAGTTTTTCTCTTCCATATTAGTGCTTCCCTCAGGAGCTCTTGTAAAGCAGGCTGTGGTGGGGACGAAATCCCTCAGG  
ATTTGCTTGTGTTGAAGGATTTTGTCTTCTTCAATTATGAAGCTTAGTTTGGCTGGATATGAAATCTGGGTGCA  
AATCTCTCTCTTAAAGATGTTGAATATTGGCCCCACTCTCTCTGGCTGTAGGGTTTCTGCAGAGAGATCAGCTGT  
TAGTCTGATGGGCTTCCCTTTGTGGGTAACCAACCTTTCTCTCTGGCTGCCCTTACATGTTTCTCTCATTTCACCC  
TTGATGAATCTCACGATTATGTCTTGGGGTGTCTCTCTCAAGGAGTATCTTGTGAGGTTCTCTGTATTTTCTGAA  
TTTGAATGTTGGCCTGTCTTGTCTAGGTGGGGAAGTCTCTCGGAAATATCCTGAAAAGTGTTCCTCAACTTGGTTTC  
ATTTCTCCCATCTCTTTTCAAGTACATAATCACATGTAGGTTTGGCTTTTACATAGTCCCATATTTCTTGAAGCTTT  
TTTCATTCTCTTTTCAATCTTTTTTATCTAATCTGTCTTCACTGCTTTATTTTCAATTAAGTTGATCTTCAATCTCTGATA  
TCCTTCTCTCCACTTGTATCAGTTTGGCTATTGATACTGTGGTAAAGCTTACAGATGTTCTCGTGTGTGTGTGTGTGTGT  
CCATCAGGTTATTTATGTTCTTCTCTAAACTGGTTATTCTAGTTAGCTATTCCACTAACCTTTTATCAATGTTCTTAGC  
TTCCTTGCATTAGGTTAGAACATACTTTTTTAGCTTGGAGGAGTTGTTATTACCACCTTCTGAAGCCTATTTCTGTG  
AATTGATCTAACTCATTTTCTGTCCAGTTTTGTCCCTTGTCTGGCGAGGAGTTGTGATCCTTCGGAGAAGAAGAGGCAT  
TCTGTTTTTGGAAATTTCCATCCTTTTTGCACTGGTTTTTCTCATCTTCAATGATTATCTACCTTTGTTCTTTGCTG  
TTGGTGACCTTTAGATGGAGTTTTTGTGTGGTCACTTTTTTGTGTGATGTTGATGCTATTGTTGTTGTTGTTGTTGTT  
TCCTTCTAGCAGTCAGACCCCTCTTCTGCAAGTTTGTCTGAGGATCCCACTCCACACCCTGTTTGGCTGGGTATCACTAGC  
AGACCCTGCAGAACAGCAAAAATTTGCTCCCTGTCTCTCTGGAAGCTTCTGCAAGAGGGGACCCCAACAGATGCC  
AGCCAGAACTCTCTGTATGAAGTGTCTGTCAACCCCTGTCTGGGAGTATCTCCCYATCGGGAGGCACAGGGGTGAGGGG  
CCAACCTTGAGGAGGGAGTCTGTCTTACAGAGCTTAAGGGTGTGTCTGGGAAATCTGCTGTTCTCTTCAAGAGCTGGC  
AGGCAGGAACATTTAAGTCTGTGAAGCTGTGCCCAAAGCCACCCCTCCCCCAGGTGCTCTGTCCCAGGGAGATGGGA  
GTTTTATCTGTAAGCCCCTGACTGGGGCTGTACTTTTCTTTCAGAGATACCCTGCTCAGACAGGAAGAATCTAGAGAG  
GCAGTCTGGCTACAGCAACTTTGTGGAGCTGCGGTGGGCTCTGCCAGTTTGAACCTTCTGGCAGCTTTGTTTACACTG  
TGAGGGAAAAACCACTACTTAAGCCTCAGTAATGGCGGACACCCCTCCCCACACCAAGCTAGAGCATCCAGGTGCGAC  
TTCAGGCTGCTATACTGGCAGCAAGAATTTCAAGCCAGTGTATCTTAGCTTGTCTGGGCTCTGTCTGAGTGTGGGATTCACT  
GAGCAAGACCCCTTGGCTCCCTGGCTTACAGCCCCCTTCCAGGGGATTGAATGGCTGTCTCACTGGTGTTCAGGTGCCA  
TTGGGTTATGAAAAAAACTCTTGCAGCTAGCTCAATGCCTGCCCAAACAGCCACCCAGTTTTGTGCTTGAAACCCAG  
AGCCCTTGTGTATAGGCACCCAGAGAATCTCTGATCTGTGGCTAGTGAAGACCGTGGGAAAGCATAGTATCTGGG  
CTGGGTAGCTTCGTTCTCACGGCACAGTCCCTCATGACTTCCCTTGGGTAGAGGAGGGAGTTCCCGAGCCCCCTTGTGC  
TTCCAGGTGGGGAGACGCCCCACCTGCTTCTGCTTGGCTGTGGGCTGCACCCACTGTCTAACCCAGGTCCAGTGA  
GATGAGCTGGGTACCTCAGTTGGAAATGCTGAAATCAATGCACTGCTTCTGTGTTGATCTCACTGGGAGCTGCAGGCCGGAG  
CTGTTTCTATTGTCATCTTTTATTCTCTTACAATTGAAAAATAATGATCTTAAATTTTGTCTCCACAAACAAAAGC  
AAGTAAATTATCTCAGTAATATAGTTTAAAGAAATAGTTGCTCTTTTAAATGTTGGCAGGGGCATAAGGGATAAGAGA  
AGAAATAGTTAAGAACACAGGTGGGTTCAAATCTACTCTCTGGCACTTACTAGCTGGGGAACCTTGGGCAACTCACCTA  
AACCATTTAAGCACTACTAGTTGCCCTCTTCTGGAAGATGGCAGTTGTAATAATACATAATTGATAGTGTTCATTATGAGA  
TAAAATGACATAATGCAATAAAGTTATTGGCCATGTGCTTGGTACAAAATAAGTACTCAAAAAGTACTTCAAAGTAAT  
TTTTTATTCTAGGAGCCATTCTTACAGCTGGAAAAATGTGCTTTTGGCTTACATTTTCTTGTGCTTCAATGATG  
TCTTCAAGAGTATGACCTCATTATTTTATCCCTTCCACAAATATGACATAGAAATTTGTTAGCTACATTTTCTAGGGAAAA  
AAAACCGAGCCTCAGGAATATTAGTGAAGTCAAGGCTTACACCTCATAATTAGCAGGATCAAGACCAATGAAAG  
TGCTCTTGGTAAAGTACATACCTGAAGCTAACAGACAGTGCAGGCCCTCTACAACATAGGTAGCCATGTTTAGTGTAG  
GCAGCAGTTGGACTTCTGTATATTCTTCTGGCACTGGAGACTGCTTCTATTATAGAAGTTGTGACCTTGTCACTCAT  
CAAGCAGATGGCATTGCTTGTATTAGAGTCAAGCCATATTTAGAACATTTCTATAAAGCCATTCTCATTTGGGCAACAT  
TTTTGCCAATTGAAGTGTCTTTTCACTAATTGAGCAAAACAAATCATGGGCTATCCACTCACAAGGGCTTTCCACCAC  
CCATATTTTCAAGGAAGGCAGGTGTTGAGCTTATATTTTCAAGATATATTTCCAGCTTCATACACTCTTAAGAGAACATT

Fig. 6 211

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GAAGCCTCTTTGATGAAGGTGAGGGTCTATAAACATGCTTGTATTTCATTATAAGGGGATTGTGATTGTCCTCATAGAAA  
AATGACTTTAAGAAATAGATGTATCCTGAAGCAAGATAATATGAGTGTGAGGCTGGACACGTAAAAATACAGGGAAGGT  
AGTGGGGAAAAGGCTGAGAAAAGAGTACTGTAGACTTTACATCACAATGCTTAAATTAATCTAAAATGTAAGCTATAAA  
ATAGACTAAAATTATATATAGACGTATGTGCGTATGTGTGCATATGCATAAAAGTGTATGTATCTCCATACTTCAAAGG  
CTAATATTCACAGATAGATTCAACAATCAAATACGGAGTTAGTTTGAAGGAAAAGCCAAATAAGACACCTTTGCTAGA  
CTTTAAATTTTATTTTAACTGAAACTACGGTATAGACATAAAAGTGTATTAATTAATCTTAAATTTGTAATTAATTTG  
TTTCATTGTCAATTGAATCAGATGTGAGTGTATTTAGATAAGTCAAGGTAGTAAAAGAGTATAATAAGAAAACACTGAGAC  
CCAGGGATCATGCTAACTCAGACTTCTGTCTTGAGTCTGCCACATAAGAGCAATATTTCTCAGGCAAATATTTTCAT  
AGTTTGAACCTTGAAATTCATCTGATAAAAGGACACACCAATGCCTAACACATAGGGTAGCTGTGAGGATTAAATGA  
CATGCGCAATTTGCATGGCTTCCTCATCAAGTTGCCACTTGTATTAGTCGGCTAGGGCTGCTATAGAAAATACCACAAG  
CTTGGTGCCTTAAGCAACAGAAATTTATTTATCTCACCGTTCTGGAGGCTAGGAGTCTGAGATCAAGGTGTTGGCAGGGT  
TGTTTCTTTCCGAGGGCTGTGAGGAAGGATCTGTTTCAGGTCTCTTTCTTAGCTTGTAGATGGCCTTCTCTCTGTATTT  
TCTCTTCGTCTTCTCTGTACATGTCTCTGTGTCACATTTCCCTTCATGTCTCTGTGTCCTCTCTCTCTCTCTCTCT  
CTCTCTGTACATGTCTCTGTGTCCT  
TCCTATATGACCTCATCTTAATAATAACATCTGCAAAAACCTATTTCCAATAGGGTCCCATTCTAGGGTACTGAGAG  
GTTAGGCTTCAACATTAAATTTGATAGGGGGACACAGTACAAACCATAACAACACTCAGAAGTCACTTTCTCAGACAGA  
CCATGCTTGACCACTGATGTAGTTTGGCTGTGTCCCAACCAAAATATCCTGAATTGTAGTTCCCATAAATCCGCACGTGT  
AGTGGGAGGACCAAGTGGGAGGTAATGAATCATGGTGGCAGTTACACTCATGCTGTTCTCTGTATAGTGTAGTGTGAGT  
CTCATGAGATCTGATGTTTAAAGGAGGCTTTCCCTTTGTTGGCAGTTCTCTCTGCTGCTGCTATGTGAAGAAG  
GACATGTTAGCTTCCCTTCCACCATGGTGTGAAGTTTCCCTGAGGCTTCCCAAGCCATGCTGAGTGTAGTGAATTA  
ACCTCTTTCCATTATAAATCACCCAGTGTGAGGTATGTCTTTATTAGTGGGATGAGAACGGACTAATAACAACACTCTTT  
TCTAAGAACAGTCTTACCTTTCCCTAGCACACACAGTCCCTTGCCCTATATAATATGCCAAAGTAAATCATAGAATCAT  
TTATTTCTTATTCTTTTCTATCCCCACACTAGTCTGAAGTCCATGGTGCAGGGCCCTACTTGTCTTGGAGGTTGT  
TCTATTCTGGGCTTGGAGAACAGTGCCTGGTACAAAATAGATCCTTAACCTCTGGCTTGGGTTAGGGCTCAATAAGTA  
ATAGGTGGTATAAGTATCTAAAAAGAATCTCATTCTCTATCCAAATGGTATTCACTAGCCATATGTGAAGAACTA  
AATTTTCAATTTTAAATAAATCTAAATTTAAATATCCATTAGTGGCTATTATATTGGACAGACAGATATAGAAG  
ATTTCTGCTACTGCAGGAAGTTCTATGGGACATTTCTAGACATAGAAGCATAGATGAGGATATAATAGTGATAATTCAG  
TTCAGACCCGGTGTCTGCTGCCAAATTCACAACACTGCCCTGCATTGCTGCCCTCTCATGACACCACACAGTCTCCAG  
TTGATTGTCTCTTCTTATGGTACCAGGTGTATTGGGTGTATTGCAAGCATTTTCTTCTCCATTATTAAGTTAAAAAT  
ACCCCTTGAAGTTTGAAGAGCTGTAAAGGGGTTGTCTTGAGAGTCCCATTAACATTTATAGTGAATTCTGTGGCAGCA  
ATTTTATTTTAAATTTGTTGTGCTTTGCTATTAGATAAGTAAGCAGTAGGCATRGATAATTAATGTACAGATTCTG  
TTTACACAACCTTAAAGATGACTCTTTGAGAAACATGCTTTAAGGACAATGAACAGTATATCCCTTACTTGAGGAT  
AAAATATGGGTGCAGGTACAAGGAGTCAAGGTGTGCTGAGTGTGGGCTCATTTCTTCCCTCAACCTGGAAGTATATA  
GATTCTCACCATCTTGTTCAGCCTCTGCCTTAGGGATAAAGCAGTGTGCGGGTGAATTTATGCTCAGRAAGTAAACAA  
GGCTAGCAAAACATCTCTCATTTGTTGGCAGTAAAAACCATTTGCTATGAATAACAATCTATATTTTATAAACTATTTTGG  
CTTCACATAAAAATCTGATGCTTCAAGGAACATACTCCAATGTGCCTTGAAGTATAGCACATACTCCAATGTGTTACTG  
AATCCTGAACCACACCCCTAAAGGAGGCATTATTGATATCACTGGCTTAACAAAAGGCTTTGGGGTGGGGTGAAGGGA  
TAATACATAATGCAGTTAGAAAGTGATAGAAAGCATATTGCTTATATAAAATTCAGTGTAGGTAAGAATAAAATATGA  
AATACATGTGGCAATGAACCTTAGAATATGCTCCAGTTTGGAAAAAGAAATAGTAAGATAAAACCTTAGAATTTGGAACA  
TTTTTAAATAACCTCTATTACTATCATTTTAACTTTTGAACAGTGACAAAATATCCCACTGCTTTTGTGACTTTTCTGA  
AAAGAATACATGGTCAAGGGTATTCTGTATTGGAATACCATTCAACCTTCAACCTTATCACCATTCAAGTAAATTTG  
AGGAATGGTAATTGATGACCTTAAAGTGAAGTCAAGTCACAATTACCTGAAGAACTAAAAATGCTACTGGAAGGACTAGAC  
TCTAAGTTGGTACCTAACTAATTCTTATTGCCTGAATGTGGTTGTAGAGTAGACCTTCAATAGGAAGTGAATAGGGGA  
AGTATGAAAAATTAATGTGTACAAAATCAAAGCTTCCTGATAGGTCTTTTGGGCTATTTTGAAGAATAAGACAAACA  
ACAGAAGCATTTAATTTGAGGATTATAGAGCCAACAAAGGCAAGTAGGAGCATATTTATCAGACATAATAAGACAG  
AAATTAAGATCTTTATTTAGTATTGAGGTCAGCGTTCATTAAAGTTATTACCTTAATTTATTTAATCAAAATATTGACTC  
TTCATCAATGCATTTTAGTATTTTAGCTCAGCGTTCATTAAAGTTATTACCTTAATTTATTTAATCAAAATATTGACTC  
TATTCTCATACTGCAATAACTTGTTCATGATTTGGATGTTAATATGATTTTTTTTACCCTGAAAGTTAAACTAATGC  
TCATCCTTTTCACTATTAATAATTAATGTCTTCTATTTTAGTTTAGCATTTAAAAAACAAATTTGTAGAGATGGGATCT  
CACTGTTATAAAAAAGCTTTCCATTTTTGTAACTGCAAACTTGACGTTAGCTTAACTAAAATTACATAATAGAATTTT  
CAAATTAAGAAATTAAGTCACTCATTTGTTCTGTAAAGCAGTCAACCTTGAATAAAGAAATSCATGGTTCAACATATTT  
TTTAAAGATTTCAATAGTACTTTTCACTTTTATGAAATGACCAATTTTATGAAATTTTATATATTTTCACTGAAACA  
TTGATGTTTTGATATACACATAAACTTTATGAAATGACCAATTTTATGAAATTTTATGAAATTTTATGAAATTTTATG  
AATTCTCTTGTGTTGACTTTTCAATTAATGTTTGTGATGTTAATGATTTTTTTTACCCTGAAAGTTAAACTAATGC  
TTTTATAGAATCCAACAAACATTACTTTAATGTTTAAACGACCCCTAAAAATGGAACAGGCAATGGTTTTTTTTTTT  
TTTTGTTTTGTTTTTTTGGAGCGGAGTCTCACTCTTTCACCCAGGCTGGAGTACAGTGGCACAATCTGGGCTCACTGCA  
AGCTCCGCTCTGGGTTTCATGCCATTCTCTGCTCAGCCACCAAGTAGCTGGGACTACAGGCGCCCGCCACCACGC  
CTGGCCAATTTTTGTATTTTTTGTATTTTTTTAGTAGAGACGGGTTTACCCGTGTAGCTAGGATGGTCTCAATCTCCTG  
ATCTTGTGATCCRCGCCCTCAGCCTCCCAAAGTGTGGGATTACAGGCATGAGCCACCGCGCCAGTCATTGGTTTTGT  
AATGCCATAAAGAATCCATGAATAATATAGTCGTGATTTATTTTTTGAAGAGAAATGTTCTTTTAAATAAGCATATGTT

Fig. 6. 212



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TTCTAATTTACACTTGAGCAAACCTTTATTTTAAAGAAAAATTGAGAAATTTATGTTTCAGAGTTATGAGACACCGTCT  
TCTTATCTAAGATATGAAGGATGCAGCAATAAATTATCCAGATGTTTTGGCTATAGTCTTTTTTATTGTTGAGTAACA  
AATTTCCATACACTTAGCAACTTAAACAATATCCTTTTTTTTTTTAATGTGCGAGCTCTTTAGGTGAGAAATTCAGG  
ATAACAGGGCTGGTTTATGTGCTCAGAGTCTCAAACTCAAGGCTGAAATTAAGGTGCTAACCAGCTGTGATCTTATCTG  
GAATCAAGGTCATCTCTCAAGATCATTACTGCCACTGTTGGAAGAATTCAGTTTTCTTGCAATTATAGGATAGAAATCCC  
TCTTCTTTTTGGCTAGCTGTTGGCTGTAGCCCCCTGTGACCTTCTAGAGGCCACTCTTGGAATTCTTATCCCATTGGTCATC  
TTCATCTCAGCCGTGGAAGACCTCCCCTCTCACACTTCATCTCTGACTTCTTTTTTGCTTCTAGCTAAAGAAAGCA  
CTCTGCTTTTTATAGGTTTTATAGGACTCATGTGATTAGATTAGACCCACCCTGATAATCTTATCTTAAGGTGAGCTGAT  
TAGTAACCTTAATGTCATCTACAAAATTCCTTTTTCCATGTAAAGTAATATAACCGTGGAGTAACACCAGGGCTGAGG  
GTAATAGGAGTCATCTTAGAATTTGTATTAGCCAGATGTGGAATTCCTATCAATAAATTTAAGCAGTGTTCATTATTA  
TATTTGAAAAGGAGAGAAGATTAGGGTGGCTGATCATCTTGTATTTAAATGCTAAGAAAAGACAATAATCACAGCCAARA  
AGCTTGGTCACATGTTGACTTTTTAGGAACCAATTATAGCAATCAGAATTGATAGAGGCAGAAATCATCTGCAAGG  
CTTAAAGGAATGCTAAGAGTTTACCAATTTAGAAATAAAGAACTACCAGGCAAAATGAAGAAATAACCATGTAATTGA  
AAAACCTGCCAGAAATAATTTCTTAATTAGATGTAGACCAATGTCTCAATAGTTGGATAACAAGGCAGAGGCCACATAAT  
TCCTCTGTGTCATCAGTCTGCTCAGACATTCTCATCCATTGCAGATTAAAGCCGAGTACTACCACGTTTGTGCCACAGCG  
TCTCTGTGGCCTCCTCCCTGATGGCTGCCTGGGAACATGTTCCCTCACTGCATCACACTGCCCTTCCCAGTCTCTCAGGA  
AGCTTAAAGGGGTAAAGCAAAGGGAGGAGACTGAAAAAAAATGACAAATTCGGGAGAAGATCTTTTAACTTTCTGTTT  
ATTAAGTGAGAATTTGTAGATAGAGTGGAAAGAACCATTGTGATCAGGGGCAGGAGTATGTGAAGGAAAGGAGGGATAG  
ACTGAAGATGTGAGAGACAGAGAAGGCCCAAGGATGGAACAGGGGATGGAATTAGGAGAACGCTGAGGATAGGATAG  
ATGGGGATAGAATTAAAGAGCGTGCAATGGATCCATTAGTCTGGAAAGTGAAATCTTTATTTTTCTGAAATACAGGAAAA  
GAACAGAAATGAGTAGTGGTTTCAAATGAGGGAGAAAAAGCAATTACATGTAAGAAGGCTTCTATCTCTCAACACAA  
CGGGGCTGCTTTATATATATTTTCTCTCTGTAAAGTGATAAAAAATAGTAAGGCCAAATAATATTTATGATAGTTAAC  
TGATATGATGCATATAAACTGCTTAGAGTAGCATATACCACATTATAAATGCACAGAAATGTTAGCTATTTTTTACTAT  
CATTGCCATTATATTTTTCTATTGACAGTAAAGGAAAGTGAGGTAAATGTTGTGAATTTAAAAGTAACATAAAGCTTTTC  
AATCACTTGTTAAAAATAGCATTCGACAGAAACATTGAACCTCCTTAAATGTAAATAGCACGATTTCATYGAACATCTA  
GTCAAGATGACTAATCTTTTTTCTAGTAACGCTCAACAGTCTAGAAGGTACAGAAGGCGGTGAGGATCAAGGTTTATA  
AAAGGTGAGGAATTGGAACCTGCGGACCTGGTTTGTCTCATGAGGCACATACCAAGATCAGGGTGAGCTAGGAAGTT  
TAAGTGATAGGAAGATAATAGATTTATTTAGAGAGGGGAAATTGAGACAGTTTCAAGCCTCGGAGATGGAACAGAACAA  
CAGAGCTCCAAGCACTGGGATGCAGGGCTGGAGGTGACCAAGTCCACGACTTTGTCTTTCTAAAGTGAAGTGAGGTGA  
GTCTGAAGAAATTATCACTGTGATTAGGTTGTTATTGAGGGCAACAGGGCAAGCTAGCTTAGGAAGAAAAAGTTTGGC  
CTAGGTRTAAGATGTAGTTGTCTAATATTGAACAGCACAGATTTTGAACATTAGCATCACCACAGAAAAATTCGATTGA  
ACAGCACTGTACTAGAGGTACAGGAAAGTGAGAGGGTAGGGTCTTACAGAAAAATGTTGGAGCAGAAAGAACTATGCCAA  
ATGAGGATGTGAGCAAGGATATTCTGTATTTTGAACAATTTGAAGCATTATTTATTTTAACTTTTCTGAAATTTAG  
GATGAGTCATGCAATTGATGTGCTCATTTAATAAGGTAGTGTATTTTGTCTGAAAAACCATTAAGCAATTAATA  
ATGCATCTCACAATCAGTGTATCATCAATATCAATGAAATATGGTAAGAGCAAGGCCAAAGGAAGGGTTTTCTTACTGG  
GTGGTGATCACAACGATAAAGAATCAGGACAAAAAGACTGAAGAGATGTGGTGATAATGGGATATGAGCTGAGTTGGAA  
AAGAACTAGCCCCAAGATATTAGTCAGCACTTTGGAGGGGTGATGAATTTGCCATGGTTTAAAGTACTTCTTTGAGTTT  
ACAGCACCCGACTCTGTGTTCTCAGACCTTATGTTGTTTGAATTTGGGCTGATGGTGAGTGTGAGGAGAATGATGTCA  
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GACAAATGTCGGAGAAAAATACCCCTCTGTTTTGAGTGAGAGAAAAATCAGAAGAAAGGGAGAGATCGGGGTGTGCCG  
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CCAAATGGTTATTGATACCTGCAATAATACTTTTTCCCCTGGAATTATATTTTCTCTTAAATATATGTGTGTATGCA  
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AATATCTTTCAGATTTAATCAGTGAGAACTACTAGGAATTAGCCACTATGCTAGGGAATACCAATCATTTTGTAT  
ACTTTTGTAAGCTGAAGCATCATTTAGGGGCTAGCAGGTTTGTCTGATCATATTCAAAGCCTTACCTGGGTGAA  
CTCCTGTGAGAACCTATAAATTCAGGGATGCTAAAGTCACCATGGTGACAAGAAGAACTCAGCTGGCTTCTTATTCAATG  
CATCTCAGATGAAGGTGCTCACTCCAGGAAACATAAAGGATATCCATTAATTTTTAGCTTTTTTGTGTGAAGCAAAGG  
GTATTGCTAATATACAACTCTGGAATAGACCTGATCAGTTACCCAGTCTCTGGAAGAGGGTGGTAATTGAAAACTAA  
TAAGGGCAGGCCCTAGTCTAAGAACTAAATCTAAGACAGCCACCTGAAGTGTGAAGATGGAATTCAGAGTTGAGTC  
TGGAGTGTTTTTATAGCTTATAGCTCTAACTTGCCTAATTGAACTTTACAATTGAACCTTTTACAAAGAAAGTGGGGAT  
TTATTTTACTCTACTCTAGGGGGCCAAAAAAAAGAGGAAATGAGAGTATAGGAGATTTCTCTAGGTTATCATA

Fig. 6, 213

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AGAAAGAAGTCTGACAATACAATCCTTGTTCATTTATCTTTTATAATAAACACAAAATATTTAAGAGCTGTTGGAA  
TTCTTTGTTTCTTCCCATGCTGGCTATTTTGCCATTCTCTTCATCTCAATACCTTTGCTGAC' AAAGTCTTGAAACCA  
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TCCACTGATCTTGACTTCAGTTTACCTTGGCAATTCACCTCCATGGCCACACTCTGAACCTTGTTCATCAGCCAGAACT  
GCTCCAACCAACCTCAAATCTTAAACTCAAATATCCACACTCTAAGCATAGTTTCTTTCTTTCTAGCTCCTCTTAT  
TACGTTAAAGACCTAATAGTCTTATTTCTCAACTGCTTTCTGTCTAACCTTCATTGTTCTCTCATAAACCCAAACAG  
GAGATAACAAGCCAGGATTAATCCACCTGTGTGATCTCCCATTTTTTAACCTTGTGTTTCCAGAGAAAACACAAACCA  
CTTACACTGGTGCCACAGCAAGTTCACTCTCCAGACCCAATTGGATGGAGCCTCAATACTGCCAAAATCCCATTTCAT  
TTCTCTAGTCAGCCTTGTGTCTTTTTTCCCAATAAAACTCTGTCTCTTGGTCACATGGACATTTCCATCCTATTTCT  
GTTTGAGGTAGAAAACCAATCACCCTAATGTGCAATCAAGGGTGAGAACCCTTATTTTCTCATATCCCCCTTCCCTTATA  
ACTTGTCTTGGATCACCAGCTTTAGCCATGGACTAAGTCTTTAACATGGGYATTTAAACATACTTAAACACACTTCCCTC  
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AATAATTTTGCATCTACTCTCAATTTTGCACTTTTCTTACACCAAAATATACTGACATTTTGTAGTCTAAATCCAGGAAAT  
TTTTCTTAGTCTTTGTTTACTCAGATTCTCTTCAAGTATTTGAAGAGTGTAGGCCACTCTCTGTGCATAAAACAGTCT  
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ATCACCTGCAAAGCCTTTTAAATGCAGCCATCCGCTTCTGATCTGATCATCTGAAATCAGAACTTAGGGATTGGG  
GCCAGGCACCTAAGTTATTCAGAAATTCACAGATGATTGTGATATGCTGGTGGTCTTCTTCATCCTCATCTCTCTC  
AGGCATTCCCTTTATCAGTCTTTTCTGATATCCTAGACCCTAGGCTTATATTTTAGATATGTCTGCACAGATGTC  
CAAACCTCACTGATGTGTCCAAGAGAGCCTCCTTGCCTCATTCCCTTCCCATCTCATCAATCTGCTCTACCACCTCCC  
CCTTTTCTCTCCCCATATTTCACTCTGAATGAGTGACATCAGATTTTATTTAAATTGTACAAGCCAGAACTTGATAA  
TCATTTTGAATTGTTTTATTTATCCCTCATGTCCAATCAATTGTCAAGTTATATCAGTTTCACTCTAGTATTTCTCAA  
AGTTTTTTATATACATGGGTATTACTTTAGGTTAAGCTAAGTCACTGTGTGCTATAACAAAATACCTAAAACCTGGG  
TAATTTTATATAGCAAGAACTCTTTCTTACAGTCTGGAAGCTGGAAGTCCAATATCAAGTGCAGCACTCTTGCGA  
GGGCTTTCTGTGTGACATCATATGGCGGAAAGTGAGAGGGCAGGAGAGAGCAAGAAGGGACTGAACCTTGCCCTTATA  
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CAATGACTATTAAATTTCAATATGAGTTTGGGAAGGGAGAAACATTCAAACCATAGCAGCCACCATCATCTGTCTTCT  
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TCATGTTCCAGCTCATATCTGATATATCATCTTTTAAAGGATGTCTGCCTAAACCTGTAGAATGGGCTTAAGAGGGCT  
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CAGTATTGAAAAGCTAGAAGTAGAATGAGCTGACTGACTTGAAGAGGCCACTACTTAGTGAAGAGCACTTCATTGG  
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CATGCTCCCTGTAAAGGAGCTAGGGAAGGAATGTTCCAGTTCTCTCTTGTAGCTTCTGGTAGTCTCTTGTGCTGTAGC  
AGCATCCATCCAGTCTTACATAGTGTCTCTCTGTGTACGTGTTGTCTCTTACATGGTGTCTTTTATAAAGGCG  
TGAGGCACACTGGATTAGGGACCTACTCTCTTGCAATATGTCTCATCTTCACTTAATGAATCATACCTGCAACAATCC  
TATTTCCAGTAAGGTACATTCTCACGTACGAGGAGTTAGGACTTCAACACATGATTTCTGGGGGAGACGCAATAAAGT  
GTTGGACTTGGGTTTTATTCTGTGGTGCTATTATTGTACATTCATAGATCAATATTAGCTTTTAACTCTTATTTTTAC  
AGTCCACATTGTAGCATAATATTACTGTGGTTGCCATGGAAGAGAAGTTAGTAAATGACTTTCATATACAGGGCTAC  
CACACTGGTTTCCAATTGAGCTCTTCAAGGTTGAAGATGGAGGACGATGGAGCTCCTCCACCACAGCACCTCTCTTT  
GCCTAATTTACCCATAAGCAAAGCAAGGTTTGAATCCACCTATCTAAAATAAGACTTTTAGACATGTTGGAGGATATA  
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ATTTAAAGAAAGAAAACGACAAAAGTACGAATCTTATGTGCACTTATTACCTAATACTTTAAATCTTGGAGATATA  
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ATACGTATAGAGGTATAGATATATATAGATATCTTTCCACACTTATTTTAGCTCTTGAATGCAATAGAAATAGGAAAA  
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ACAAAATCTAGATTATCTTTAGCAGTTTACTTTTATTTTTCATGGATAAAATTTGAAAAGACAGGGCCAGTGACTCAT  
TCTACCATTGAGAGCATCGCTAGGGAGCATGACATTATCACAGAGACAGATATATGGTGACTTGGAAATTTTTTGTAG  
GTAATTCCTATTCTTAACTTAATATGAGTTGCCAATTTGGAACACTGCTACATTATATTTATCACAGAGTTATACTT  
TTAATGGTTTGGGGATCATAGATCTGACCACATCAATATTTGGCTCATTTTCAAATAGAAAGTGCTGAAACACCAAA  
ATACTGAGCTGAATCTTTAAACTTTAAAGCTGAAAACCACTCATGTACATAAAGTGAAATAAGAATCAACCTAGTG  
TAAATGGCTGCATTTTGAATTCATTGTAAATCTTAATAAAAAATATTGTTTTAAAGCCAGCATGTTTGGAAATG

Fig. 6.24

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GGTGTAAATTTGCATTAAAATCAGATGAGATTATTTCTTGGTTTTACTACTAAGACACATGGACACAGGAAGGGGAACAT  
CACACACCAGGGCCTGTTGTGGGGTGGGGGAAGGGGAGGGGATAGCATTAGGAGATATACCTAGTGTTAAATGACGAG  
TTAATGGGTGCAGCACACCAACATGGCACATGTATACATATGTAACCTGCACATTGTGCACATGTACCCTAAAAAC  
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GGCCATTTTGGAGACTTCTGTAATAATTCACTAAATAGATAGAAAACTGCCTAGACCTATACTTCGCTGTAAGATAGTC  
CTCTTTTGGTCTAACCCCTCATTTCTATTAGCTAAGCTAGCTAGTCAGGAGTGTAAAGGTAGGCAGTATAAAGAATTTAA  
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GAACTGTATTGTTGAAGAGCTTTTCTTCCCTCACAATTGGAGAGACATAAAGACTGGTGATATAAGAGCAAATGCAGAC  
ACTTTTGGTCACTTAGCTTGTGTTTGAATGTGCTGACTGTGCTGTGCTCCATCTTGAAAATATTGAGGAGTCAGCAAA  
ACATATTTGACTCTTACCCACTTTTTCTTAAATGTTTCATAGTCATGAGTATTTCTGTTGGGGAATTTAATCTATGTGC  
CTATGATTCAATTTACACTAGTCTCATCAAAATGGCATAGGGAGATATTGAATGGCTAAGAATCCTTAAAGTTTAAAGAGG  
CCATTTAAGGCTTTTATCTCTGAACCAGAAAGTCATAGTGTACCAGGACTACTCCCAATTCAAACATACCAGGGTTCAA  
TTTTGTTTTGTCTAATATATCCAGGAAACCTTACTGTTTGATTATGATTCTAACCTCAAATGCTGGTCTAACATA  
TGTATATATATATTAATGAAGTCCAGGTAAGAAGCGCATGGCTAGAGATGGGAATGTTCAACATAAAAAATATCCAGCCA  
CCAGCCTGGTGCCTCATGCTGTAATCCAGCAGTTTGGGAGTTCGAGGCCTGCAGATCGCTTGAGCTCAAGAGTTTGAGA  
TCTCAGCTACTCAGGAGGCTGAGGCCTGAGAATTGCTTGAGCCTGAGAGGTGGAGGTTGCAGAACCGAGACTGTGCCAC  
TGCCTCAGGTCTAGATGATAGAGAGAGACCCTACCACCAAAAAAATGAAAGCCCATTTTGAATAACTAA  
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GCTTTAAACTTTTTCATCCATTAAAGGAAAGTCACACTGAATTACTCCGTTGGTGTGTGCGATATTCTATAGTTTAA  
AAATGCTTTAAATACATAATCTTGTCTGATTAGGTAACAGGATTGGTATTCTCTCCATTCTAAAGGGGAAAAATAC  
AATTACATAGAAGTTGTATATTGTTGCTTTATGTGTAGTATAGACTCTTACAGTTCTGAGCTATGATTGTATGCA  
ATAATAGAAGCAATGCTGCACATATCTCATATAGCTCTATTTTATTTTAAATTCATTTTCTCATACTTGTAAAGAAAT  
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CATAAAATTCAGTTCTAATTTTCTCCAAAATAAGATGCTTACTCCAATATAATATCTTCTCTTAATTTTACATAT  
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CAGGTCAAGTCCAGTCAGGGCAGTGACTAAGAAATGGGTGAGAACTTACTTAAATATGCAAGTTGCCTGGAAAAAGTT  
CAACTTATATAATATATGGGAATATGTGAATGGAGAATGGCTTCCCCCTTAATGTGTAACTGTAACCTCAAATATTTT  
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TCTTCATGGTGAAGCAATTACTAAATTAATTTAACGGCAGTCTTAATGTAATGTAATTTTGGTTTACTGATATGTAATCA  
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TCCCCCTGGCTTTCCCCCTTTTCCCTTGAGGACTCTGCATCCTCCTTTGCTGCATCCTCCTCAGCTTTCCAAAGTCTTAG  
CATGGACATGTCCCAAGCTTAGTCTTGCAGTCTTCTGCTCCTCTCTTCTGCTATCTCTTACACCTCATCTAATCACAAG  
ACTTCAAAGTCTATATGCCATTGTTTGTCAAGTCTCTACCGATCTGGATCTCTCACCTGATACAGACTTTTCATATTCAA  
CTGCTTCTCTGTCATTTCCACCATGATGTCTCTCTATACCTGAAACTGAGCATGTCCAAAACCAAGTATTGCTCTTT  
CCCAGCAAACCTTGCTCCTCTGAGCCTTCTGATCTCAGACCAAACTTTGTTGTGTGCTTTGACTCTTTTTTCTCTCA  
CACTCCCAATTCGAATCCAATCAGCAAATCCAGCCAGCATCTTTCAAATATAACCCAGAATTTGCCCCATTTCTCACC  
ATCACCATGGCAACCAGCTTGGTTCCGGCCACCAACTTTCCACCTGTGTTGCTGCACCACTCCTGACCAGTGTCCCT  
GCTTCAGCCTGTTTGCACCCCTCAGCAGAGTGAGGCTGCTCCAGTCTAGGTGGCATTAGGTCAGTCTCTTTGCTCAGAA  
TACTTCAGTAACCTTCTGATTTTCTCAAATGAAATGAAGTCTTTATAATAATCTACTATTTTCTCTGGCCCTCT  
CAGATTCAGCTCCTACTCCTCCTCTGCTGCTCAGTCACTGCTGCTCTCTTCCATTCCCACTATCCAAGCAAAGTC  
CTGCTTCAGGTACTTCATGTTCTCAAGTCTTCAAGCCAGAACTTGCAATCAGCCTGATATGCCATTGTTTCTTTCTCTCA  
CCTCTTTCCATCCTTTATTTGGATATCTTCAGAGTGAGGCTATCCTTTTATTTTGTTTTTAATAATATATCTTCCCA  
TGCTGTCTCTGGCATTCCCATCCCCCTCTTCTTTTAAATGTTCTCCCTGCAAACTGTTATCATATAATCCTTATAT  
AGATTTTCACTTTTTCTTTTTGTTTATTTTTCTCTCTCTACCAGACTCAAGAGCCCTAGTTATTTTCATAGTTCACTG  
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GTCTATCTTCTCTCTTAGGTAGAAGCAGGCTATATAAAATATAAATTTATTGGATTGTGAGACTTGCCCATATTTATA  
TTCAAATACGATAAATCCAATGTTGTTGTTGGAATCTGTAAAAAATAAATAGAACATCCATTTTAAAGATTGAACA  
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ACCAAAGGTCCTTCATGATCCTTGAAACTTCTTGCAGTTCTAAAGAAAACTCAAGCTTATAGGAAGAAGTTTTAATG  
AGACATTGTGCTGTTGAGGAGAGACAAAATCATAGTTTCTGACCTCAGGGGCAATTGATAAATAAGAGAGCAGAAGCTC  
TAGGGAAATTAGTTTTTAGGAAGTGAATCCGGTGGCTCATGACATTCTAAATAGCATCAGAGTAAGAATGACAGTC  
TGGCTGATTGGCTTTAGTGATGTGGATAGATTTGGCTGCTATATTATCAAACTGGATTGAATCCCTCAATATCAATG  
AAGTTTTACAAAGGTATAAGGACTACTGGGCCACAGTTTATTCTAGGACTTCAATTAAGTGACAAAGTAAGGTGGGCCA  
AAGTGAGATTGGGACAATAAGCTAAGTAATCTTAAATTTGTTCTTGTGCTATCCTGATTGATCAATCCACAAATATT  
AATATTTATGGAACATTTACTGTGTACCAGGCACTGTGCTAGGGAGATTGTGTAACAGTGACCACAGCAGATGTAAACC  
CTGCCCTTAAGAAGTTTGTATCTAGTGTGAGACGGGCATTGAGACAGATAAATGAATATACAGTGACAGGTTGTGAT

Fig. 6.215

[illegible]

Fig. 6.216

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AGATTAAATGAGGAAAGGCAAGTCAAGTATTGAGCACAGTGCCTGGCATTACTACTTACGAAGGTTATGTTCTTTATT  
ACTCCATCTACTCTTTCCATAATTGCATCCCTCCAACCAAGTCTGTCCAGCCTTCTCCGAATCCACAGGACAATTCTG  
GTCTCCCAAGTATGGTGGGCAAAGGTAGGTTTTGGTGTCCAAAGCACAGCTCAGCCATTTACTCTCCAGGTCCATGGGCAA  
GTAACCTTAACCTCTCCAGGTTCTCAGATTTCATCATCTATAAACTGGGGAATATTAGTACATGCTTTATAAGGTTATTG  
TATTAAAGGAAATAACTTGTCTAAGTCTCAATGCACAAAGTCTTCCCCAGAAGACAGACTTGAAAAAATATTAACTTTA  
TTTCACTCTCTCTCTGCTGCCATTTCCAATGTGCTGTGTCATGTTTCTAAATGGTATGTGGAAGAAAGCTGATTAGTTT  
CTTTGCTAATTATTAAATTGAATTCCTTTAGTTAATAACAATGTATTCTTTTGAGAAGCTCAGCTCAATTTATAGTGCTAG  
AAACATACAAATACAGAATTTATACGAGTTGATCTGGGGTTCACATAGATGAAAGGGTGTTCCTTAGCACATTGCTCT  
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ATGAATATATGTATATCAACTGTTCTTATTTAGTATAGTTCTCCCTGAAAAAGAGGTACTATTTTATTTTAAATATT  
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GATCAATTTTAGCCTATAATAACGGTGTCTTTTACACTTTTATAGATGTTAGAGAAAGTCTGGCAGCAAAGCAAAGCTTT  
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TGGAAAGTTGATAAACTCAATTATTGTGTAATAATGTTTACAAAATTTCCAATGGATAGAAAATAAATTTTGGCATT  
GCCAATTATTGAATACTTATTTTACCTTTGGAAATAGCAAGTCAGTTACAAATTTTATAAATCTATATAATTGTCTTT  
ATACATAATAAATAATTTCTGATGTTTTGTGAGCAATATGCAGTTTAAAGCACCTTCAACCTGTTACATGTTTACGG  
GTTTGGAAAGTTACTGGGAGGAGGTAGAAAGGTCTGACCTTCTCCCCAGGAATTTAATATCTGGTCAGAGAGAAAGAAA  
CAGACTTTTGTGTTGTTTTGTGTTCTTATAAACAGTGCCAAATGAATGTGTGTATGTGTGTATGTTTGTGTGCA  
CTTGAGCAATCATTTTGTAGGATAAACTCTTACAAATGTAATTGTTCTGAAATGGTATGTATGGTTTACATTTTAA  
AATTTGCTAAATGTACTCCAAAAGTCTCTCTAATCCATGTTTCTAACAACGTGTATGGGTGACTGTTTCCACC  
CCCTCACAATCTGCATATTTTGTAGTCTTTTAAAAAAATCTTAAACGAATGTGATAGGCAAAATACCTGATGTTT  
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TTGCCCCAGCCCCCTGGTAATTACCATTTCTAATCTCTAGTTCTATGAGCTCAACTGTTTTAAATTTCCCATATGAATGAG  
ATCATGCAGGATTTATCTGGATATATACCTAGTAGTGGGATTTGCTGGATCATATGGTATGTTCTATTTTAAATTTTCAA  
AGAACCTCCATACTATTTTTATAATGGCTGTACTAATTTACATTTCCCATCAACAGTGTACAAGGGTCTCTTTTCTCC  
ACATTTCTTGCCCAACACTTAATATCTTTTGACTTTCTGATAATAGCCATTCTAACAAGTATGAAGTGATAGCTCATTGTA  
GTATTAGTATGCATTTTCTGATGATTAGTGATGTGGAATAGTTTTTCATATGTCTGTTGGCCATTTGTAAGTCTTTTG  
AAAAATGTCTTTTGTAGTTCTTTGCCCATTTTTCAATAAGGTTATTTCTTGGCATTGAGTTGTTTGTAGTTTCTTATAT  
TTTTGGATACAAATTCCTTATTAGAGGTATAGCTTGTAATAATTTTCTCCTAATCTGTAGGCTGTCTCTTCACTCAGTT  
GATTATTTCTTTTGTGTGAGAGCTTTTTAGCTTGATGCAATCTGTCTATTTTGGCTTTTGTGCTTTTGGTTTTG  
GAGTCATGTTCAAAAAATCATTGCCATAATCAGTGTATATAGCTTTTCCCTATTCTTACATTTATGTCTTTCATCCA  
CTATAGGTTGATTTTATATATGGTATGAGATAAAGGTTTATATTATTCTTCTGCTGTGGATATACAGTTTTTCCAG  
CACCATTTATTGAAGAGATTGTGTTTCCCCAATGTATGTTCTTGGCACCTTTGTTGAAAATAAGTTCACTGTAGATGTA  
GGGGTTTATTTCTGGCTCTCTATTATGTTTCAATGGTCTATATGTCTGTTTTATGTAAGTACGATGCTGTTTGGTTA  
CTACAACCTTGTGTGTATTTTGAAGTCAGGTAATGTGATGCCTTTGGCATTGTTCTTTTGTCTCAAGGTTGAGTTGGA  
TATTTAATGTCTTTTGTGGTTCCATATGAAATTTAGTATTGTTTTTCTGTTTCTGTGAAGAAATGGTATTGGAATTTT  
GATAGGGCTTATAATGAATCTGTAGATTGTTTTGTAGATTGTTTTCAGATATGGACATTTTAAATTTAATCCTCCAATC  
TATGAACACGAACATCTTTGCATTCATTTGTGTCTCTTTAATGTTATACAGCTTTGTAACTATTATTAATGGGATTT  
TAAATTTCTTTTTCAGATAGTTCTGCTGCTAGTGTATATCAACACTACTGATTTTTGTATGTTGATTTTGTATAGTGC  
AATTTCTATTAAATGAATAGAAGTGCAAGAGTGCCATCTTTTCTGCTCTGGATCTTAAAGGAAAAGCTTTCAACT  
TTTCTTGTGTAAGTATGGTGTAACTATGTGTTTGTCTATATATGGCCTTTGCTTGTGTAAGTACATTCTTCTATACTT  
AATTTGTGAGGGGTTTTTATTATGAAAGGATGTTCAATTTTGTCAAGTGCTTTTTCTGCGTCTATTGAAATGATGATA  
TAGTTTTCTGCTCTTTGTTCTGTTAATGTGATATATTACATGTATTGATTTGTGTGTGTTGAGCCATCCTTGCATCCCTA  
GGATGAATCCCACTTGATCATGGTGAACAGTCTTTTTATTGTGTTTTTAAATTCAGTTGGCTAGTTTGTGAGGATTTT

Fig. 6.217

TGCATCTATATTATTCATCAGAAACCTTTGGCCCTGTAGTTTTCTTTTTTTGTAGTGTCTCTTCTGGCTTTGGTATACAGGGCA  
ATGCTAGATTTCGTAAAAATGAGTTTGGAAAGTATTCCACCCCATCAAGTTTTTGAAGAGTTTGAGGAAAATTGATATTAG  
TTATTTCTTTAGAAAAATTTCTATTAACTTAGCAGTACAAGTTAGCTAGTTTACACTTTGGGGCTCTGAGGAGATGTAAT  
GGAGAAAGAGCTGAAATTGGGGTTCAGATTATATAAATCTCAAGTTTTGGTTGAGCACGAAAGGAGAGGGAGTGAGACTA  
ATGATAAGAAGGTTAAAGTAATCAGTGGATTGATTTGGGATGGGCAGTCTCAAAAGTGCTGAGGATTAGTTCCCTATT  
CAGTGAAGGAGAACACAAACATAGAGGAAAAAGAAAGACATTCAGTATAAAATTTGAATATACCTAAATGTGTGTA  
AATTACGGAAGAAACCACTTTCAAAGAAAAATAACAACATGACATGGGCTACAGAACAGTTAGATTAAATGATCCCTCA  
TTATAGGGTGCCATTAGACATAGGAGTTAAAAAAGCAAACCAGAACACACACTGCAGCAGCTCCCCAGTT  
GCAAGCACACTGAAATAACAGAGGCTGCCCTTACGGGAAGAGGATTAGTTCTACTGTGACCTGTTTATATAAAAAACA  
TGTTGTGGGTAGCAAGATTACTAGAAATGACTTCTTGGATTATAAAGGACAATTATGATAGCTTAGGCCACTAGCTTTC  
AGTACATTCCATCTGGTACGTTACAAATTAGCTCATTATTCTGCTGTTCTTACGAATGTGTTAGTCTGCAAACATATCA  
TTGTCAAAAATTAGTCACCTAGTGTTTCTCTGAAAGTGATTAAATATAAGCACACCCACATCATAGGATGGAACAGTAA  
AATGGGCTCTTGCTAGATCCTCCAAACAGAAATCAGCATAAAGCAAAATTCAAATTTCCAAAGGTTTTTGGCACATACAT  
CATCTCTGATTTTTCTAAGATGAAATGTGATTGTTGCCCTGGATATTGGTAATACATTGTAATATTAGAAACCTCTTGG  
GTCTCCCCATGAACCTCTAGAGATCCAAAGCCTACTGAGAAATGATGGGCTACAAATTAGACATAGCTTTTTATTGTTTT  
TATTACATTTGTTATCGCAGGTGCTATCACAACTGTTGTTTCAATAATAGCAATTTCAATTTGAAAATTAACCTTAAAG  
ATCTTATTTTGAAGTGTGTTTTGTAGCAGATGAGCTCACCACAGCTACTTGGAAAGAAGAAGAAAAGTGAGGAAACA  
TAAACTTCTCTGCTGTCTAACTGGATTACCTACTGAGACATCCCCCTGTGTGGGTTATAATAAATATTTATGTTAA  
TTCTTAAGTTAAGATGCCTTTGGTTGCAAGTCTGGAGCCCCCACTTAATGGCTTAACAAAAACAATGAGGAAAATGT  
ATGTCTTTATAACATGAATTTTCAAGGTAGGCTATTCCAGGGTAGGTTTATTAAGAGGTTCAAACACATCACCAGGTTT  
TGCTTTGCCATCTTAGCACTTTTGCTTTTGTCTCAGACTACTCTCTCATTTACACAGGATGGACAGTACATAGCCAGA  
CACCAGGACCAAAGGCAGAAAATGCACCCCTTTCATGCTGAGCAAGAACTTGTGAAGATATATTTTAAAGAGAGAGA  
ACTGAGTAGTGCCGTGAGTCCAACCTTACCCTCTCTTAAAGCGGGCTGCAGTTATCTAACTCATTAAAGCTCAAAGAG  
AGACCTGGCCTTCAGCCATTTGATGTCTTCCCAAGAGGACCATCTGGGAAAGCCAGTTTGGCTCCAAGAGCAAGAGTT  
GGTAGGGATGGAACCATAGAAAACAAGGCCTTGATGGGGTGCTGGTTAATCAGCAGCAATTGGAAAACAAGGCTCT  
TGCTTGAGTCAAAGGAGTTGCAGCCAGAGGACCCAGCAGGGATACCAATTATGAACCCACAAAAGTACCATGAGACAAA  
GAGGCAGCTTTCAACATCTGCCAGGTCTCCAACATGTGATGCCATCTTACGATGGCACTAATTCAGGAAAAACAAAACA  
AACTCTTTTCTCTCTTCTCACCATTCTCTGTCCTTCCAATCCCAGAGGAGTCAATACCAACGGCTAGCCAGCCTGG  
ATAGCCAAGGAAGGGGAAGAGCAACCCAGTCTCAATGCTCCACCCTAGCTCCACTGCACACAGAGACTCTGTGGTGGC  
CCAGCTGGGAGAGGGGAGAAAATGTAAGTTCAATCAAGTTTAGAGTTTGGGTTACAAATTTGAAATGGACATCTAATT  
TCTGGATAGAGTCTGAGATGATGGTTTAGCATGAATGCAAAGGTCTCTATTGCCAAGTACCCAGAAAAGTCATAAG  
ATGTTCTTTTATAAATAAAGTTTAAAGGGACAGTTTGAAGCAAATAAAATGTGTTTTTACACTTTGGGAGACCAAGGTGG  
GCGGATCACCTGAGGTCAAGGAGTTCAAGACCAGCCTAGCCCAACATGGTGAAACTCCAATCTCTACTAAAAATAAAAAA  
AATAAATAAATAAATAAATAAGCTGGGTGTGGTGGTGGTGCCTGTAATCCCAGCTCTTTGGGAGGCTTAAGGTAGCAGA  
ATCACTCAAACCTGGGAGGAGGAGGTTGAGTGTGAGCCAAAGATTGCGCCATTGCATCCAGCCTGGGCAACAAGAGCTCA  
AAAAAAGAAAGAAAAAGCAAAAAACAGCATTGTGCTATCTACTACATGCTCTCATTTTCAGCAAAATGTTTCAATA  
TTGATATCCATTTACAAATATTTTAACTACCTTGACAATACCATATCATATTTGTATCTTTCTGCTGCTCTCCCTT  
TCTTACTCTAATATTTGAGGGGAAAATATTTTATGCCCTCTAGCAAATATGCTTCTGATCTTTAAACACCTCTGTCTCC  
AGCAAATGGATCCCAAAGAGATGTGCATTCAAGGTGTGGAACACAGCAGGTCACTGGGGGAATGGGAAAGTTAGGAT  
TTTTATTTTTTATATTGCTAGAGACAGGGTTTCATTTGTACCCACTGCAGCCTTGAACCTCTGGGCTCAAAGGATCC  
TCTTGCTCAGCCTTGCAAAGCACCGGATTACATGTGTGAGCCACTGCAGTGGCTGAAAATTAGTATTAATAGTAATG  
TCCTTCTGTCTTAGTCCACTGTTTCACTTTTCTTTTCTTCAAGGCTTCTCTCTTTAGACTCCCTTGGACTGGGAGTTT  
AGCACTATCACTGCACACTAGACCTGAGTCTATGAAGAGGCTGTCAAGGATTTGGGCTATCAGATTGCTCTCTC  
CCAGAGCAAAAAATATTCAACCTCCACACACACAGGCAGCAGCTCATCTCAAATGGACTGTGCTCTAATCAGTGA  
GTGGTTATGGAAGACGAGGAGAAAAGTGCATTTATATTTTCACTAACTTTGTTCTGCTTCTGTAGCATTTTCACTT  
GAAAATGAGTTGGGAATTTCAAACATCAATAAAACGTGCTGAGGATTCTGACAACAAAATCCTTTTTTGTCTATGTGCTA  
TGTTGCCCACTTCTGCTTTTTATTTTTGTCTCAGTCCCTGTTTGATTGCTAATCTAAAGGGAAGGGAGGGTCAAGTGA  
GAAAAGAGGAGAAATCTTAAAAATGAATTTACTATTTGATCAGGTTTGCTACTTTATTTTGTGGAATAATTTAAAGCTC  
TTTTGTGCTTTTATGATTTTACAAATTTGGAACTAAAAACAACAGATAAAATCACATTATATTTCCCATTTGAATTTAT  
TCCCACATTTCAAATGTGCTTCCCAGAGAGAAAAGTAAAGATACAGAGCTAGGCAATTCAGTTTCAATTATAGTT  
TTGTGCTCATCAGTTTGGGAGCGTGATTGTTCTAGTTTGTGTTTGTGCTGCTTAAAGTATTATATAGTCTATTG  
CGATTTTTTTAGGAATGGAATATGCCAATTATAGAGAGAGGTAGGCGAGTTAAAGAGTTTCAAGTCTCAGCATTATAGA  
TTCACCCTCGAGTCAGAAATGTTAAAAACAGCAAGGAAGAGTGTGAAAAATGCTAGGTGAATGAGAGGGCATCTGTCCAC  
AATGGGCAACTAGTATTTAATAACTAGCCTTGAATTTATTCTACACTTGAATGCAAAGATTATTCTACTTAATTATACT  
ACAGTGACTTTGAAACTATTAATTATTCTAAATTTATTTGGGTTCTAGTTTAAATACATTTTTATATTTTAAAGCTTTCAA  
ATGATTAATTTGAAAAATTTATCTGAATATCTTTTTTCTTAAAGGAATTTCTGCCTTTTGGAGTACTAAATTTCTCT  
CTCTATAAATCTAAAAATATCAGATATTTCTTTTTTCTTAAATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT  
CTCTTTATCTGAAACAACTGACATTTAATGAAGAAAAGTGTGAAAGGCTGTAAGAAATGAGAAAGTGAATGATTTTTG  
ATTGGAAGTGTAATAGATGTCAGTCAGAGAAAAAGAACAGTCTCCAGAACATCTAGATGTGGATGTAGATGTAGATACA  
TTGTTAACGCCACTCTGTGCATTTAATTTAAGCCACTTGATCATGTAACCATTAAATTCATGTCAAGTTCACTTCATTG

Fig. 6.218



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TAGCTATTCAATATTACAATATAGCATTAAATTTTAAATGACTTTATTTTCAGGAGGGAAGGAAATAATTTATGAATAGCA  
ACATAAGGTTTTCTTATATGATGACTCATCACAATGTTGATGCAAAAAAGAGCTGACTCAGACTAGCTCCTGTAGAA  
AAGGGGGAACATAGTTACTATGAAGATACAGAAATTAACAGAAACAAGTATAGCAGGGCCTATTGGATTAGGAAACTG  
AAATTAAGGCAGCTACTCTCTTTGGGGCCATACAATCACCAGATTTCTTTTGTCTCTGTGTTTCTGTTCTTCTGCT  
TCTCCCTGTAATTGCCACTGTCTCTTTAGTTATCAGTTTGCACTGAACCCAAATGGTAACCTCAGCCCCCTGAGTCTAC  
AGGACATTTTGGTTCAACCCACCTTGAACCTGATTAGAGTCTCAATTTCACTTAGGACATTTTACATTCCAAAGAGCAA  
ATATTAATATTTTGCTGCCTAGTAAATGAATCAGATGTGAGTCAAGTTATCATGCTTATTTCCCATCAGATTTTATA  
ATGGTGAAGTGTAGGAAAGGCAAGGTCTTTAGAAGGAAACATAGGCAGACATAAGTAATCATGTTTGGTATAGAGACTC  
ATTTATTAATATTTTATGATAATAAAATACTTAAACAAAGTCAATGTCAAGATAATAAGGACTCTGAGTCTTATTATGC  
ACCAGATACTATTCTAGGCATTAGAGGATATACCAAGGACAAAACAGACCAGAAAAACCCCTACCCCTAGAGCATGTA  
CCCCACTACATGCTGATGATAATCTTTAGTCATCTATTTCAAAAAATAACTTAAAAATGGAGTGGCAATGTCTCTGCGTA  
GTCAATTCAGATGCCGAAATAAAAAATACATGTATATGTGCTTCTTGTGTGTTTCTTTTGTGTTTCTGTTTCTCGT  
GTTGAACCTTGCATGGTTTTCTAAATGAAATATTTTTCATTTTCAATATATGTTTCTGTTTATACCTAATCTGTT  
AATGCGCAATGATGTGTAATTATATATGTGCATGGGTTAGAAGTGGTGGATGGGGCCTTTGGATTTTAAATGGCATTTT  
ACCTGCAGCCTCTGATGCAGCCTCTTCCAGCTTCTTATTAAGTGAAGTGAACACTGCAAAAAATATATATATATATAA  
TTTTTAAAGCACTAAAAACCAGTACTGGCAGAAATATTAAGAAGCGTTAAATTAGATTGACAATATATATGTTGGAC  
CACACATTGTATTCATTTCTAAAAGTAGGAAGAATAATTTCTAGTTTTACCTGGACCATAACAATACATCTACTATGTC  
CTACTACTGTAGTAGTATATGCAGCGATATACTACTTAGATTTTAAAAAGAAATATACAAGCAGACCTAAATAGTGGG  
TCAAAAATTAAGAGTTAAGAATAGAAACATCCAGGAAATACCTCTTGAGATCATCTACTGGTAAAAATTCATCACA  
GAGTTTTAAAGAAATAATAACTTTTTGTAGCCCCATCTGATTGAACCTGCCCTTCCCGAGTAAACCTGTGAGAGTGGAGA  
GGTTTGAGTATTTTCATGGTAATTTCTTTACCATGTGCCATCTGGCAAATAAAAGAGTTCTTTCCAGGCAGTACTTTT  
TACCAAATTCAGAGGTCGGTGAAATATTTCTTACAACAACATAAAAAATCGGTGGTAAACCCACTATTCTGAGGGGAGG  
AAGACTGGAAGAAGTATACTGACTTGTCTTTTGGGAATGGAATTATGGATGACTTGTCTTCTTGTGTGTTTATTT  
TATTTTATTTTGTATTTCCCATGTTGAACCTGCATGGTTTCTTAAATGAAATAATGTTTCTTAAAAAGAACTT  
TAAATGATATTGAATCTAGTTAAATGAACTATGTGATAAGTTTTCAGATTTTATAAATAGATTGTCAAAATAGTGT  
AAACATCTTGTATAAAATACATCTTTGCTTCAAGCATATTGTAAAGAAATGGAATCTATTGACATTACAAATAGCAA  
TTTTAGCATCCATAAAATTTGAAATTGTATAAAAATGTACATATTCTGGGTATAAAATGTTAATGCTTGTGATGTAAC  
TTGTAAAAAATTTATTTTAAAGCAATTTTAGGTTTACAGCAAAATTCACAGAAAGGTCCAGAGATATTCATTACT  
CCAACCCCAACATGCATAGCCACCCCATATCAATATCCCCCCCACAAAAGTGGTACATTTTAAAAATGAACTGAA  
CTACATTGATACATCATTATCTCTAAACATATAGCTTACATTAGAATTTACTCTTAGTATTGTATATTCTATGGGTTT  
GCACAAATTTATATTGATGTATATCTTCCATTTTGTATCATACGGATAATCCAACATCTCTGGCATGTCTAGTTCTG  
ATGCCTCTTCTGTCTCTTTAACTGTGTTCTTTGCTTTAACTATGCAATTGTAATTTTCTTATAGCTGGGCTGTA  
CTGGATAAAAGGAACCTCTGTAAATAGGCCTTAAGTTATGAGTGGGCTGGGCGAGGATGGTGGCTCATGCCTGGTAATCCC  
AGCATTTTGGGAGGTGGAAGCAGGTGGATCAGCTGAGGTGAGGAGGTTGAGACCAGCATGGCCAATGTGGTAAACCTC  
ATCTCTACTGAAAACACGAAAATTAGCCAGTCATGGTGACACATACCTCTAATCTAGCTACTGGGAGGCTGAGGCAG  
GAGAATTGCTTGAACCCGGGAGGCGGAAGTTGCAGTGAGCCAAGATTGTGCCACTGCATTCCAGCCTGAGCTACAAGAA  
CGAACTCTGCCAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA  
GTGGTGTGGTAAGGGGAGTGGAGGGGAAGCTTTCTATCATTTCCATAATTAGGTTTTCAGACTTTTGGTGAGCCTGGGCC  
TCTGGATTGTGAATCTCCTAAGTGTTTTTCAGGTTTCTTTTCTTATACCATAGGTGAGAGGAATGGCTAACGTGGG  
CTGGAATTGAGTATTTCTTCTCTGATGGTAGGCTAGGTGGGCTGGAGTTGGGCTGAGTTTCTTTCCCGAGGTGAG  
TGAGGCTCTAATAATAACAAAACAAAATGGAACAAAACCCAGCAGGTTAGGCTCTGATTAACTAGTTTCTCTCAGG  
AAGAACCAAGCTTCAGCAGATTTAAAGATGTGACTTTTTCCCTCTCTTGGTGAAGCATGAGAGAATTTTCTCCAA  
TATTTACTGTGAGAATTTGTTAGCACTCCTGGAGGTAAACACACAGAATTGTGGGGACCTCCCTATTACTGGGTTCT  
CTGGAGTTTTCAACTTTTCAAGCTTGCCTGCACTCAGCCTCTAACGATTTGTCAATTATAGTTGAGGTTTCTTACCCC  
AGCACTGGTTCTCTTGGAGGTTTCTGCTCCGGTATGTTGTGATTCTCCATAGCCTACTGTCTATCTCACCAGTGGTTT  
GGCAGCAGTTTGGCCTGTGACCTCACTTCTCTTATGGATCTAAGAAGAGTTGATTTTCAGTTTGTTCAGCTTTTGT  
TGTTAGGACAGATTGGCAACTTCCAAGCTCCTTATGTGAGGAACCTGAAAGCTGGATTATGTTACTTTTTTACTGGGAGG  
TTGAGTGATAGAAGAATGTCTCATCAGAAGTTTAAATTAATTAATCAATCAGTAACAATCAATTAATTTCCAGTGAAGC  
AAATCTATTTTGGATACATCTAATCAGGATAAATGAAAGAATAAGTGTGCAATTCTTACAACATTTCTTTTTTTTTT  
TTTTTGAGAGCCATTACAGGTGCGAACCACCATGCCAGCTGATAATATGAGTAAGTTTGAAGTTGGGCTTTATTTTA  
TTACATGAGAAATATTTTGTCTCTTGAATTTCTAAACAAATATTATACAAAGCCTTTAGAAAAGCTTAAGATATAA  
AGTAATTGCAAAACAAATGATCTGTATTTTATTATATTTTAAAGGTATATGCAAAACAAATTTA  
AAGAGCTCTTCTTATTAATAAATTTTAAATTTAATAAGTTAAATTTAATAATCTAAGTGTTTGTATTACTTCCATG  
CTACGGATAAGGAAATTTGTCTTACAGAGGTTTCATGCGTTGGTCAAAATTACACAAAAGTAAAGGCAGAACCTGA  
AAATAAGGGTTTACATCTTAGGACTCCAAGATGGTATACACATTTGACTTTTTTGTCTTTAACTTGTGTGAACATTT  
TTCCACTTTTGATTCTTAAGTATAAATATTAAGTGCTTCTTTGTATTTTCAAGTATTAGGCTTTTAAAGTCTTCTACTTCC  
AAAAAATAAATTAAGTAAATTTTAAACAGCATTCTAAATATTCCAATTATGAAATATATTTTCAATTTATGAGATTTT  
TCTTCTGTAAAAAGAAATTTATCATTTAAGATTAGAAGATTTAACCTTGAGGAGTATGATCCAAATGGCTTTTATATTA

Fig. 6 219

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GTTGAATCATGAAAAGTCCCAACAAAGCATTGCTGGTTTTAGGTGATGAACTAGGTGTTAATGAATTTATTTTTTC  
TTTTCTAATTGGTGATTGTACCTGGGTTATGAGAATATGTAGAAATTGAATGTAGTACTAGCAACTTGTGAAA  
CATGATGCATTTCCCTGACTCTCAGCAACTGAACTGCGGCTTCATGAAAGGCTTCTCGTATTTCAAGTTATAAATGTTT  
AGAACAGCATGCCTTCAGACTTTGCTAGAACTTGCCAGGAGTGGAAAGTCATGACTATCAACATCGTTATTAGTTAACA  
TTGACTGAGTACCAACAATGTTTTGGTGTTATAAATATAGAGAAGAAGACACTGTTCTGTTCCCTGGGGGATTGGCTTT  
CTGTAAAGGTGAGATAGAGAATTTGGTCTTGAATGTTCTTTCTGCTGGGAGGTGGGTTGGAAGCACAGCCACCTCA  
GGTCTCATTCTGATGGCACACTCACCTCTTTATTAGTTGATGATATATGCAATAAAAAAGAAAAAATGTATAATTACAC  
ATACATACACATGTGAAACTCATGTAAATTTTATTTTTTATTTGGTAAAAATATATATTTATGGGGGAGCTTGAG  
GCAAAAAGTCACATCCTGCAAGATATCCAGGTGACAGTAGCTTCTATATCCTTGTGTATAATGTATTTATACTGTTATT  
AATAGTATATAGAATGTGCTAAGAAAAGTACATAGAAGTTTTTGTATGTGTAATATATTTATATGAACCCAATATGTA  
GAATACAGGGACCAAGTGTTTTTGTTTTGACATCTAAGGGACAAAAGTAATCCAGCCTCTTGAAAGAATGGAGACTTTC  
CAAAAATATCTGAACGTATTATTGGTATTATATAAGATAAATAAGTCATCTTTTAGGCTCTTTATCTTTGATGCTAA  
ATATACAGGAGTTTTATTTTCATCAAGTTATTTAAGAGGCAAACTTAGTACATTAGCTATTGATTATCAAAATGCAATG  
ATGACAAAAAATATACCTTAACATTTGACATTAAAGTTACTTTCTGAAAGTGAACTCAGGGAAAAATCAATGAAGTAA  
CTCATCACACCCTCTGATAAGTACAAGTGACTAAAGAGTCTAGGAAATACCCAACCTCAGGAACAGGGTGTGACTTTA  
TTATACTATGCTTATACTAGCATAAAGGTGAACCTTAATCATCTTTTATGCTCATTGTGAAGGAAGTGTGTAAGTTGA  
AGGCATTTTAAGAGGATGAAATACTGAAACTGATATTACAGAGATAAGAATTTGTGTAGAAAGTATTAATTCTGTATTT  
CTACTGTTACATTTTTGTAAATTTTTTTAAAGAGCCAGACTTTTTTGTATGTATTATCAAACCTTTGAGATAAACTAG  
TTAAAGCAGAAGAGCTCTTGTGAAACAGCACAAAGTACCTGGCTTCTTAGACCCAGCACAAAGTACCTTGCCTTCAG  
CTGACCTGATGCAACTTTGAAAAACCATAGGCTTCCGACATCAGCCTTAGTTTGAACCTTATGAGCATCAACCC  
TATAACCATGAGAGAAAAGGCTTTTATTGAAAAGGACGTGGGACACCGGCTAGTTAATACCTCTGGCTCTGATTCTGG  
ATGCATTAAGCGATCTTTCAATGAAAATGTTGAAAGTATTTTGGTTTGTCTGAGTTTGTAGTTTATCAATTAATTGAG  
CTTTTTTATTGAATCAGCCTCATTAAAGGTAGTTAATATAAGTTCACTTACTCTGTGCTTGTGTGGGATTAAATTT  
AAAAAAAACACAAAACAAAACAACAAACAGTCTTTGCTCTAGTAGAGCTGAGGTTATGCCATAGCTGCAGGGACTTC  
ACTGAGGTTATGCCAATTTGTGCTGCCCTGCTAATAATTCGCACTCCTGTATTGATAAAAAATAATGGGGCTGAGATTAG  
CCATAAGAGATACTTTTTATGGTTACTCTGATATTTCTTTTTAATTTTTTAGAGACAGAGTCTATGTTTCCGAGCCT  
GGTCTTGAAATGGGCTCAAGTTATCTCTGTCATCAGCCTTCCAAGTAGCTAGGACTACAGGCATGAGCAACCAACT  
GGCTTCTGATATTTCTTAAAGTTTCATGAAAGGATGATTATCTTTTAGTGTAACAAAATAGATTAGCATTACCCTAA  
CCCAACAACATTTTTTTCATTTTTGACAACTTGTTTTTAGATTACAAACCTATTAGTTCTGCCTAACTGTTGTTCTTGA  
AGGCCATACATGTAGGAAGTATTAATTTGTAAAGTATCAGCCTATAAATTAGTAGACATAACTCTTAAGACCCTCTTT  
CTAATATAAATGGAATFAAATGCTGGAATGAGTTATTCTATTTTCTAAGCAAGCCTATTCTTTTATATTTGTGCTT  
TATGCTGCAAAAATATTCAATTTTGGATTGTTTAAATATGTGTAGTCTTGATTCTCTGAACTGTGAAATAAATTACAG  
TTTTTCTTTGCTATCTTTCAAGCAGAAATTTGGCTTTCTGTTATTATCATAGTTTCTCAGTTGTGTTTCCCTTTGT  
TCTAATTTGTTAGACTTTTATTCTAGACAGTTGTCATGTATAAAAAATAAAAAATCCAACGAAATTCAGTTTAAAAATTC  
AGCTAAAAATGCTCCTCTTAGTTTAAGTATATTTAGTAGTTTAAATGGCCAAATCATTGTATTTTATTTATAAAGTCTTT  
GCTTATATCATTGCCCCGAAATGGAATGTAGCTAACAAAGTATTGAATGTTGAACTGTGTGGTAGTGGAGAAAGATTCA  
GAGGTATTCTTACTATCTATCACCCATAGGTGATGTTTGCATATGAACAGAGTAGAATAAATGGACTAAGAAAAT  
AATGTCAGATAAATGATGTTTATTACAAAGGAAAATATATTTTACATCTTTTTAAAAAATCTTTGCATTGTGCTACTTT  
CTATGGAGACCTACTCTCTGTATAAGGACTGAATGTTAGTTTAAAAATAAATAAACCCTCATTATCATCATCATGA  
TCAAAGATCACTAACAGAGTCAATAATTTGAATTTCTTCCAGATCTACTGCTCACAAGATGCCTGATAATGAACAA  
ATACAATCTTTTTGGCATCTCCAAATGGGCATATAAATGCTTAAATCTCCTCAGCATATCTCTGTGATGCCAAAATA  
ATACATATAACAATAATATTTTAGAAAGTATAAAGTATAACAAGGTGGTATTATTATGATTACAGAGGTGCTAGAATA  
TTGTGGTAATGTGTACAGGCTCTGGAGCCAGACTTCTTGATTGAGATAGTGAAGTACTAGATATTTAACCTCAGACAT  
GCTACTTAACATCTGAGTGCCTCAATAGCCTCATCTGGAGAACAGGGCTAGTAACAGTCTTAACCTCATAGTGTGTTG  
TGTGGATTAAATGGGGTAATACTGTAACATCTTAGAATGGGACCTGGGGCATTGTAGATGTTTCTAGCTCTTAAATAA  
TAATATTTAAATGTCTAATAATAATCAAAATTTAATTACTTGATTCAAAACATTCAAAGCTTGTTAAAAACAATGTA  
GGCTGAAGTTTTCTGGGCCAGATTACAAATGACCTTATGGAAGAGATTAGTCCCTTTAGCAAAAAGGGGTGATGAGGA  
CACTGCCTAGGCTACAGGAAATCTCAACAAATATTCTCAAGATTCTTTATGCTGTAGTGGCATCTTTCTGAACCTACA  
AGTTCACATTGGCTTTTAAGGAATCAGCCAGTCTCTCTCTCTAGGAATCCTCCTTTTAGGATCATCTTTTGTATCAA  
AATGAAAATTCTCCAATTATGGTGGTTTTTAAGATTAGTTTTCTTTATACTAGGTTTTGAATTTATGGGACATGCCCT  
CCACCCAATCTTGGGTAATATTTCTGCAATGACAGGACCTCACTGGGGAAATCCTAAATGAAGATAATAGCATGTTAT  
ATTAATGTTGCGGTATTTCATTTAATATCAAGCAATTGCGTAAAGCCTTTTTAAATACCTAAGTTAAAGTGGTAT  
TATTACAAGAGTTTTACTATTTTATTCTTCTCCAAATGGCATCAACAGTGTGAGGTTGCTTTTGGGGGATTATTGAAC  
AGAATTTTTGCAACAAAGGAGCAAGCATGAAGAAATGCAAAATCAGTGATAGGATTGCAACGTTTATCTCAGCAT  
TCTCATATCTACACACCCCTAATCAAAACAGCAGTTTTATGGCATGCGCAATTGCAATTGAAGTACAACTGACTTCT  
GCAGAACCGGCTTCCATAGGATTTCTGTCCAAAATCACCATGTGGTCATCTGCAGCTAAATGGTTACAAATCATCAA  
GTAAACAAGGCTTCCCCACCCCGGTGCTTTTTTTTTAAGGAGTGAATCCACCAAACCTATCATTTGCAAATTATCTC  
TGGACTTCTTTTATTTCTTTTTTTTCACTGGGTGAAAGGAAAACGAGCAACAAAAATCCTCCCTCGTATTTGTT  
TAAGGCGTAATTTCCCTGTGAGGTGTTTACAGGCTTCTCTGTTTAGCTTTTCTGCTGTAATTACTGAAAGAAG

Fig. 6.226



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TCTGCTCTTCCAGGGCGAGCTATTCTTTAAACCCCTTTTGCTTGCTCTTACTTGGAGGTTAGCAAGGAGTGCGCGGCTC  
TGCAATGTCTGGGAACCCACCTAGAGGGCCCCCTTGACGCCAGCACATCCCTGTGAGGCAGCAGTCTCTGCAGCTGAG  
CCAGGCTGCTGCAGAGTTAATGTACAGTACCACGGAGCCTGCAAGTGTCTGAGCTGATCAGAGCTGGGGCGGCACAGC  
CCAGGGCAGACAAGGCGGCTGCGAGGATTCCAAAGGTTCTGCTGGAAATTCGGCGCTGGGGGACTCCAGCAGGAGCCTG  
TTGCCATTGTGTTTTAAAGCATGCAAGGTCTGTATAGCTTGGGCATGAGAATCTTTCAGAAGATGTCAGAGCATCAGA  
ATAAATGACACCTATTGGAAACTGAATTTGGGGTGAAAAACAAAAGAGATTGAGAGAGGAAAAAAGAAAAAGAAAGA  
CATCGGGGAAGAATTCTTAGACAACGTCTGACTTGCAGCTGTGAAATTCATTTTCTTTCCAAGGCAAAATATGAAAAG  
CTCCACATGGTTTTGATAATAACAAAATAAAGGGGATTCTGCAGTGAAAAGATCAATAGCTTAGTCATTTTACTTAAA  
GAGAACAGCCAGCCTTATTATGGGGTTAGGCAGCAGAAATGAATTTTCATCGTGACAGCATCTTCTGAAGTCATGATGGT  
AGTTAATGGTAATCTTGTCTGCAGAGCAGAAATTACTCATTGCCTTCTACTTTTGCAGTTGAACCAGCAATTCTGAA  
ATCTGGGAAAGAAGTTGGCTTTGGTGATACATGGTTTCTAGCCCCCTCTGCCAGGCCTTTGTCCGACACGCTCTCAGACG  
GTAGCACTGCGTTAAAGTGACCATACATGAATATGTGCTTAAAGAAAGCAATATTCATATTCCTTCAAGGATATCAAGAACTGTCTTTGACT  
CATGGCAAAGCTGAAGTTTTCATTCTCCCTTCTAACACTTCTTTAACAGGATATCAAGAACTGTCTTTGACT  
CCTTTCTTCCACATTCCAGAGTCTTCTTAAGGATGCATTAATTTACACTCAAGGCGGTTAGATTTTACCAGGACAA  
TATTTGCCACCATTAGGATTATTAGTTGAAGTGGTTATTTTAGTATGTTGACTAACTAGTGAACCTAAATGGATGGA  
CCCATACCTGCAGTGCTCTGTGATGTTTCTTTTCAATCTGGAAGGCCTTTGTGAATTCATTTGTTTTTATTGG  
TGGGGGAGATTTTTTTTTTTTTTTTTTGGGATTCAATACTTGTGTGCAATAATTGCCACGATAGCTGCTCAAACAAGA  
GAGTTGGAATTCATCTGTAAAAATCACTACATGTAACGTAGGAGACAAGAAAAATATTAATGACAGAAGATCTGCGAAC  
ATGATGCACGTGAATAATTTCCCTTTAGAAGGCATTCCCTGGATATGGTGAGTAATCAATATTCCTTCAAGTTGTAATA  
ACTCAGAATTATCAAAATCCGTGACAGGTACCAGTATGAGGATTTGTCTTGAAGTATGAGTATGGTATCAAGTGAGAATG  
AAAAGTAAACTGTGCAAAACCGAATATTGTCTGAGAAAGTAATGGTTATGCAATAAAAAATCTTTGTTAATATGAAGCA  
TCCCCAAATAAGTCAAGCATGAGGACTTGAGAACATTTAAATGCTAATATTTTCATGGAGGAAGAAAAAATCTTTGAGA  
ATGGCAACAATTTAATAAATTTTTTAAAGATGAGGCTTAGGGTTGTTTTTTGTTGTTTTGCTATTTTTTATTGAAAA  
TTCCCTGGGGAAGGGCACACATGAATTTCTGATATATCAATTTGTCTGAATTTCTAAAAGAGGTTAAGGGAACTTAG  
AATGTTGACTCAATTTTAAATAATGCTAAAATGTGTTGGTGCCCTCACAGTTAAGGATATTTTAGCTATTCAAGAAATA  
TTTCTACCAGAATGAACAGTAGAATTCAGTAGAATTTCAACATATGAATCAGGAAGTGCTCAGGCTCTCATAGCACT  
TGCTTAGTGCTGATATTGGTCATCTATTAAAGGTTCAATGCAATGCATTACAGGTCCCTGGACATGTGATATCATGTG  
CCATTTCTTGCTGGAGTTTATGACTAAATGTGTGTAGGAACCTCATTGCTGAGGGTATTTATAAGAGCAAAAGGTCATTA  
TTTTAAATGCTTGTTTTTTGCCATACCTTTAGGGTCAGCTGGATTCTGACTTTCATAGCAGAACTTTGTGAATGCAT  
AATAAAGGCACATGTTAAGGCTTAGTGTCTGCTAACATGGGTGTTTTTGGAAATGCAGTTTGTCTGATTTTGAAGTAT  
ATCTTTCAAGGTAAATGTTCTGGCTGGACTCTGGATGAATAATAGATACCTAAATATAGGTTTCCGAGGGCTTTCCAGCT  
GCTTTTATGACAATGTCTCAAATGAAAGCTCCCTGAGAGCTTAAGGTACCACCAAAATCACCTGCTGGTTTGTACAGA  
GTTTTCGGCTTTTCCAGTAAAAAATCCATTGCAGAGAGGATGGGAGGCATCCTCTCCCACTTAGGCAGGTGCTTTATTT  
TCTAACAAACACCATCCATCCAGAGTCGATGCTGGGCTATCTACCTTTTGTGCTGACCAGAGCTACTATCCCCAGT  
CTCTAGAAATGCTTGGGTGACATGCCTGCAACCTCGGTGGCCCACTTCCAAGTGCATCACCAGAGTTTCTTAGTCAGGG  
GGAGCCTTGGTGCCATTGCCCTTGCTTGTCTGTTGGTGAGGGTCAGGCATCAGCAATAAGGTCTCATTATTCTTACAG  
ACAAATTTACATCAATAGTCTTTAATCTTGAGATTAAAGATCCTGGAACAGTTCTGCTGGCAGCTAGTAGGCATTGTG  
AATTATTTTCTTCTATGCCTTAGGCTTTTCTCAGAGTTCAATTTATACCTCTTAAGATTTGCTTGGGAGGGGAAAT  
ACCAGTCTCCTTTCTATCAAGTGTACCTTGCTACAAAGCAACAGTTTGTGTTTACCTAAGTTCTGCTGTTTAAAGCCCA  
TTGTTTTATGTTGTAATACATAGGATCCATGTACTCTTTGAATGCTGCAATTATAAGCACTTTTATTTTTTATTGCA  
TAGCTTACCTATCTTTTACTGGAAGAAATAAGTATCTTCAACTCTGAAGTTTGGAAAGATGCAATTTGCTTAT  
TCATGCTCCTCTAGATCTGTAATACATATGTTTGAAGCTGTATGGAGAAGTTGAGAGTCTGTTGGTTTTCTTTTGTG  
CCTGGAGTTAGGTAACCCCTTCTATCTGCTTCACTGCATGTCGTACCAATCTGTTGTTGTTGTTGTTGTTGTTGTTG  
ATGTAGAATGTTAATGCTCTGTATAACTCCTACTCTTCTGGGCCCCCTTGCAGGGATTCAATTAATATGATGTTGGACTC  
AAAGGAAGAAGGTGGTGGTTTTTTCCAGGTGACCTAATTAATTTTGTGCTTGGTTCTTGACTTTCTCAATGGTTGTTG  
TTTTCTCTTATTTATAGCTCCCCCTTCCAGTACTGCAGTAAGAGATTGTAGGGGTTTGTGACAGAAAACCCCTTTTC  
CCTTTGCTTACTGTAAGAGCCCCCTTAGGGTGAGATTTTCAAGGCTCGTGAATTATCGTGCTTAGAATAAAGGTCCTGCC  
AAATGTCTTTTCTATCTCCAAAGACTCCCCCTATCCTCATCTCACATTTAGAGCCTTTTCTTCTGTAAGGGACCGAT  
CAGAAGTTGGCAAAGGCCAGTGCTAAGGAATAATAACATTGTAAAGACATATGTGCTTTGGTTTTCAGGAGCCCTAG  
CTCATCTCTAGAAAGGCTCTGTACCTTTGGAGAGGCGGGACTTGGCATGTGCTGGTCTCTTCTGCTGCTGCTTTTGTG  
AGAAGCAAGATGAGAAAAAGCTGAGACACAGGAGGTCTAGGGTAGTCTTCAAATTTTACCAGAAGTAGTAATTGAAAT  
AGAAGCCTGTGCACAGAGTTCTTACTTGTACTCTCATCCACCTGCCCTAGGGCTGGTGTGTTGATTATTGAGCAATAGT  
ATTACAAATTCACCTTTTATCAGTTATGAGTTAAAGTTAATAAGTGGTCTTACTTGGTTTAAATAGAACACTACCCC  
TTCCGTGCTAAAAGAGTGGTATGAAGAATGTGTGTTTCTTCTTGAAGCTACATTAGAAATATTAGCTGGAGGATTTTA  
TTGCGAAGGCTTTTCCATTACACTTTTTCAGTCTTTTACTGCCAAGCCAAACAAAGATAAGGGTTTGCCTCACTGGA  
TAGATAAGTACTATATAGCTCTTCTTATTTTTCTTCTGCTAGTTGTTAGAAATGGAGAGATAGCCTGGCATTACAGAA  
CAAGTATGGCATGGTTGAAAGAAGGGAAATGCAAGTCAGCTTTCTAGGAATTTAAATTTTCATGTAGCAGCAGTTAAGAG  
GACCTTTTAGAAGCATTATGACCTGGAATCACATGCCAGGGTCTAACATGAATGACCTAACACAGTGTGACTAACATGTT  
CAGCTTTTTGCTGACTTAAAAGATATATAACAACTTTTTATAATCTTATTTGTAAAAATACTATAATTTTCATGCCAGA  
AACATCAAGGCTATGTTGAATGCAATTTGATGCTAAACAATTTAGGAGGGCATTATTTTAAATACCTTTTGCA

Fig. 6.22

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TCCTTTTAAATGATGGATTACATGGCTAAAAGGACAGTGAAGATAGAAGCTAAAGGCCCTGGCTAGGAGAGGCTGTGG  
AATGCTGCCATGGAGGGCCCCCTCTGAGGACACCAGAGGAAGATTGGGATTAATGATTGTGGAAGGTGATTAAATGATTT  
GCTTATTTGGTGCTTAGGGTTTAAATTTTAAAGGTAGGACATCTAAATGTTTAAACTGTCTTTGTGATGCTGAGAGGT  
AACTCCAGTGAAGAGGCAAAATGAGGTGACTGTGGCACTTTCACTCAACATGGAGGCATCTTTTCTCTCTTAGGAC  
CCTAAATTCCTTTCATTAGACTGTCTTTCCAGGTATCAATTTCTAAAGGTTTAGTCTAGAAAGTTATTTGTTTGATT  
GTTCTCTATAGACCAAGCATTCAATTCATAAACTAACTCATACTGTTTTATTCTGTTTTGATCTAAATCCTTTATGGA  
ATGAAGCAAGATATAAATCAGTATATTGATAATATATTCATATATGTGTTTCATAATTTGCATGTATATGTGTTTAAATC  
TACTAATATAATGAATACGTATTCAGAGAAAGTCAGAAATGGCCTGCCTTCTAATGAAAAGATAATCCTTCCTATCTAGC  
CTCATAGAGTTTTCATCTTTTAAAGTTTCTCTCTTCATACATTGAAATACAGAAACTCAATCCAGAAGTGCATTTTC  
CAGAGTATGTGTTCTGACCAATACATTATATTTTATAGAATTTTAGGGGGTGGGAGCAATATTGAGTTTGATGACTAT  
GTATACGTTGAAGGAAATGACGTATCAAGTCTCATGTAAGATAATGGAGCTTTGCTCCTTTTAGTTAACTTAAATAT  
TGCAGTCTTGTGCTTCCAGTGAAATTCAGGTAATAGCTGACCTTGCTTCTTTAACATCTCTTCTCTGGGTAC  
AGAACAACCCAGAAATTCATAAATATAAATACCAGACTGCCAGTCTAATCTGAATTCGTTGGGGCCAAATACAATT  
TACTTGTAACACTTAGGACCAATAAAGTTTAGATGGAGCTCATAATTATACAACTCATCTCGTTACAAATCCCTAG  
GGCTCAATGTTAAAGTCAGCCATTGTTTAAAGGCAGAAATTCAGGTTTAGATATAGTGTAGCAAAGATTTTCCATTATAT  
GAGATATCGATCCTATTAAACATAAACTTTTCTCTTGCTTTCTATTTTACTGTCTTTTGTGCCATCAGCTGTATGC  
CCCTTAATTTTTCTAGTAATACCTTGGAAATTTAAAAATGAAATTACAAATGTTTATGTTTATGTTTAAAAATAA  
TTTCGATTAAAGTATGCTATGATAGAGGAGCAAAGTTGTTATTAGTAATATCAATGTGCTTACAACTTATGGAATGAAA  
ATGACTTTTAGTCTAGCAGCCTTCTGCTGTAGTAAATAGTTTGTGCACTTTAAATCGCTGTGAGGTTACATCTTCA  
AAGGACTGTAGTGGCATAAGCCAGGGAGGTCTTGAATCTTACAAAGGAAAAAATAAGAAATTTCTCTCATCATAT  
GAAAATTTTACTAACAATGTATGATGTTTGTAGCTTCTTTTAAATCTTCACTTTCCACTCCTTTTGTCTTCTCTT  
TTAGTTGACTATTACTGAGTTACTTACACTAATGTTGAGGTATTTGGGTTTCAAGAAAAATAGGCAAGTAAAGGAAAT  
TGAAATAGTTTCAAATCTGAGATGCAAGAGAACCCAAAAAACTAAACAACAGTTTTTTATTGCCATAGGTGCA  
ATGTTCTCTTTTAAAAAAATCCCTCATCTTTCTCTCTCTTCAATCATATCCCACAAACGTTAATGCTCATTATA  
CTCTGTCTAGCTATAGCATTATCCACATTTTGTCAATAGCTCAAAATGTCTCCAAGCCATAACTGCTGCAACTGCTTA  
TAACCTGTGCACTTACAGCTTCCAGTTGTTTGTAGAGTACCAGCCTATAAACAATACCCAGACAATATATTA  
CAACTAGGGATTTGTTGTGTAATAATTTATACATATATCTCTCCATATATGATTTCAGGATAGATAATCTAGAGCT  
TACATAATCAGGCTATTGGCTGGAACATAAATAAACTAAAAAAATAATTTAAAAAAGCACTCCAGGTTTCTAATT  
CAGCTTCTGAGTGTTAATGTTTGTGTGACCTTCTGAAAGCTCTTTGAGTTTTTACCCTTTTGAATACTATTACAGC  
AGATATTTACCCACTTCATGTTAAGAAGTAGGCTATTAAAGAAAACTCATAGCACATTGGTAATAACAATTTATTAGA  
GACCAGCTGAACAACATAGTGAGACCTGTCTCTCTCTCTATTTTTTAAAGGTAGCTGGGCATGGTGGTTTCATGCCT  
GTGGTCCAGTTACTCAGGGAGGCTAAGGTGGGAGTGTCTCTGAAATTCAGAAGGTTGAGGCTACGATAAGCCATGATC  
ATGCTTGCCTCCAGCTGGGCAAGACAGAAAGACCTGTCTCAAAAAATAAAGAAGAAATTTATTAGAATGTTGA  
CAATGACATGCCAAATCTCTTGATAACTATCATATACTCTTCAAGAGATCAACACTGTTGAGCACTCCTCTGCAT  
GCCATATGTTTTACATAAGTTACATCCTTAAATGGCAATATAACTTTCTGAGAAATTTCTTATCCAAATCCCTGTTTGC  
AGATGAGGAAGGTAATGTTTACAGAGATTAGATAACTTGCTGAAAGTTTCATATATCTATTGCTAGGGAAGCTGACCCAC  
TCAAAACAGGCTGGCCTGATTTTAGAGCCCAATATATTTTAAATCCACCATATTGTTCTTGTGGCAGATGACTTAGC  
ACTCTGTTTATGGATCTTTTGAATAATTAGATTAGCAGTAGACCAGAGAAAAAAGCAGATTTACCTGTTATTATAGC  
AGCCTGGCTAAGTATGTAGGATGCTTACTGAATGTGAATAGCCTTTCTTGAGAACTCTTCTTTTAAATGTTAGAACA  
ATGACCTTACTTAGACTGTGTGAGCAGCTCTTTCTGATTTTCTCAGAATGAGAAATTTAAAGGAATTTGTGGTGAA  
CTCTGTTTCAAGGTCACTGTGGCCTATAGGATCCTTTCAATAAAGTGCCTCTCTGAGCATATATTAGGAAAGGTG  
TCACACTTTGAACAGATGAAGTAGAAATGCAAACTACAGTACTTGGTGAATGGACAGAGCCTCTGTTCAAGCAAAAGT  
CACTCTTCCCACTGGGTACACACTTGGTGTGTGGAGCATAGATGAATTCAGCTCTATTACCCTCTCTGCGGGGCATTG  
TTGAGCCCTGTTCAAACCTGCTATCTCTGGCCCTGCTTTGATACGGGCTCCAGCTTTACTTTGTGACAGATGAAATGGT  
TTTGAGAAATGCTTTGCCAAAAATAAAGATCATCCACATTTTAGGTTTTGCTGCCATAATTATTACTTTCTTCAAATA  
TTCAACTAATTGTATGCTTTAACTTCATTTTGTGCTCAAGTAAAGAATATTAGTATTATCTGAAATCAGATCCAATT  
GCCAAGAAGCATTTTTAACTATAAAATAGCCCAATTTCTGAGTTACTGAAAAATGTGATGGTTAGTGAATTATATTGGA  
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TTGTTACAGGAGTCAGAAGGAGAAACAACTTAACTGACTTGATCCAAATACCTTAAGTTTCAAAGTGAATAATATTG  
ATGATTTGGGAATTAGTAGTTACTGATAATACTTCAGAGAGTGGTTTTAAGGGAGTGTCTGGGGTAAAGTTATATTCA  
GGGGTAATAAAGCAGAGAAAAAGTTGTGCAAACTACTTCTTCAAATTTTCTTAAAGAACGAAGGAGGAGGAGAGAA  
GAGGAGGAAAGGAGAGGAGAGGAGAGAAAAACACAGTAGCTAGTGAAGAACACCAAGCATTTTAAGAGTAGGAAGCA  
TGTCCTTAAGGAATATTCTGATACAGAGCTGGGAACTTGTGGACATGACACCTCTGGGATAGGGGGAGGAGAAAGGA  
GGGAGAAATGCAGATAATGTGGAGATTAGGTAGGTGAGAGAGAGCTGAGGGAGTTTGTGTTTATGCCCCTGTGTTTCT  
TCTGGGAAGTATTAAATGGAATTCAGATCACATCTCAGAAAGAGGACCAGGGAGGAGCAGGTGAGAGCTTAGTAAG  
ATTGGAACAGCTACTAGGGGGAATTGGAAGGTTATTGAAGAGAGAGTACAAGACAGTCAAACAAGTTGGAAGGAGG  
TCTGATGTTGAATGAATATATCCAGTCAATAAAGACGTTTTACTCTACTTGAGAAATTTATTACACAAAGTATTAT  
GTGGGAATGAGTAGAGATGTGACAGAAATGTTACAAATCTTAATTATTAATTTGAACTGTTTTGTGATGAGAAT  
GTCTCTATGGATTGTGTTCTTGGGATTCCAAAGAATACAGAGTTGATCTTAATTGTTGTTGTTTTATTGGTAG

Fig. 6 222

TGGTGGAACTGTTTTATGAACATATTAATTAGATTGCGAGTTTCATTTTCATGACCTGATTTTTTGAAAATGTGAGATT  
TCTGTGCTGCTGCTTGAAATAACTCTTGGGTGACAAACAGAAGCTTTAAGATGTTTGCTTTGAATTTATCTTCAAATGA  
ATAAAAATCACAGTGGGAAGAAAAGCCAAAATGATTCAGCTTTGCTCCCTTTTAAATAGGAACCTTTCTGTGGTTTATG  
TTAGAATGTCACAAATCCATATATATGTAACCTGCTTTTACAAAATTTCTTCAAACCGCTATGAAGCTTACTTTGAAA  
GTGTCAACAGTCTCTGAGAAATGTACTGGAATAAGGAAACATAATATGACTTTAACCCAGAACTGATGTAACCCAGTTT  
AAATATTTTATACATTTAAATTTCTCTTTTATGTCTCCAAGATAAATAGGAGAAAATGACAAATAAATATGTAAGTTAAG  
GGATATTTTAAATAGCCTTTATAATTTTCTAGGTCATGAGAATAAACCTGGAGGACTGTGACTTTAGCCATATTA  
TGAATTTCTTTTCACTCTCTTCTAATCATCTCAGCAGAGCTTCCGCTATTATTGTGCACTTCACTGCTCACCCTACTTT  
ATACAGAGCTTTGCTTTGTAGAATTTTTGCTGTGGCTCTAAAACCTCTAAATAAGATTCTAAAAGTCTTAGTCACTTGTCA  
GGGAACCTTCATTCTTCTCTCCCTTGAGTCTCCATATTTTCTTTTCTAAATATGAAAATGAGAAGGTTGACTTAACTG  
ATCACTAAGGTGCTATAAAAATCTATGATCTTATATCTTACCTAGTTAAATTTACTCATTCTGTCTTATTCAGGCATAA  
TTGTTCTTCCATTAAGGTAATGCAGAGAAACCACACATAAATCAACAAACACCTCCAGGACTGAGCTCTGATGCTTTT  
CTCAAGTATTTGGCCTCTCCTATGGAATATCCTTAGCCTGTCTACCTTGGGTATTTTGCTTAATTCCTTCTCCACAAA  
CCTAACTTTAAATGGCAGCCTTTTTCATGGGGAAGACAGCAGCGCTTATGCCGCTTAATGTCTGATATCCACAGATTGA  
GAAAACATATTTCCATATGCAACCTATACATTTCTCATCTTCCCAACTCTCTCTTGATAAAGGTCTCAGGCCCTTCT  
TTTTTCATATATCTCCCACTTTAAATTTAAGGAAATAACATGATATGAAGTCTCAATCTTAAGAACCTTGTCTATTGGGTT  
GCTCACTATGTTTAAAAACAAATAAATTGGCGTAATGATGGAGAGTCCCTTGATGTTCTAGAGAAGAAAGGAAAGCTAGCA  
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GCATTGTAGTCTTAAACCTTTGGGTGTGTTAATTTTTAAAGAAGAAAATATTTGTGGGAAAAGTCTTATTTTTTAGAAA  
ATAATCTGTGCCAGATTTGATTTTTGAGAGAGGTTGAATGCTAAGTTGCCCTCAGGATGTCATCATTTGAAAGGGTGACC  
ACATTCTGTGAGATCTTCACTGCACACAACCTTTTGCTTCAAAGAACTTTCTGAGACCAAGCTAGCTTTTGAGACCAGG  
TATTAACATTTAATCTGTCTTATCTATTCTATTGTCAGTAGCCACTCGACTACTTTTCTACTTTATACCACAATACCAGC  
ATGGTGTGTGATCTTAATAGGTACTTTTTTAAATTTTTTCTTAATAAATAATTTATGTGTACAGAAAAGAATGATAAATAA  
AATTATATTGTCAAGGGGAAATTTTAAATAAATAACTTTATATTTTTTCAAATAATGTTATTGTGCTATGTTTTGAGATAA  
GGTAGGGTCGTATGCTATAAAAAATAATACAGATAATAACTATCACATTTAACAGGTTATCCATTCCAAGTATAGACTA  
ATTTTTTTATAGACATCATTTTACTTAAATCATCCCCAAGTCTGTGGCAAGGGCTTGTTTATCTACTTACTAAGGGTGCA  
ACCTTGGGTCACTTATCTAACCTCTCCATGATCTGTAAACATAGGGACAGTAAATAGTTCCTATTGCTATAGGGTTGCTGT  
GAAGATTAAATGAGAAAACCGTCTAGTGCTTAGAACACCTGTCACTCAGTAAGTATCCAATAAATATTGTTATAGTAC  
AGATTAGGCAACTAGCTGTGAATGGTTAACCAGGTTGCCATAGGTAATCAGTGGCAGGCCACTTCCAACCTAGATCTTA  
CCCATAACTATAGGTTGCTTGGAGGTCTAAAGTGCCTTCTCTATATCACAATCTTGTTCAGTAAATACAGGGACAATA  
CCTTGGGTTAAGTTTGAATTATGAGGGATAATTTATACCTCCTCATCTCTCAAGCCTCAGCAAGAATCGACTGATGTGC  
CCTCCCATGTTGAGTCACTGCTACCTTATACAGGATGGATTTTCTGTTTATGACTGTCTTACTCAGGCCCTGCTTCAT  
TAGATTCTCTGTTCTTAGCACAGTGCCTGACACATAGTAGGTGCTCAATAAATGATTTTAGAGTAAACATTACTTTTC  
CAGAATTGTGCTCTGGGAATTTACGCTTTTAAATATTATTTTCAAGTTTTTAGGATATAGCCCATGTTTTGGGGGGAT  
AGATACTGTTTCTATAAAAAATTGTCATCTTGAGCATAAATAATCCACATATCTTGATTCTGTCACTTGGGAGAGTT  
TAACTGGATTGTGAGAAGCAACCATCTGCGGAACCTGGGTGATCTGTAAAATCTAAATGCTATTGCTACAAATCACCT  
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GTAGTTTATCTTGTCTGGTGAGATAAAAGTCTGTAAATTATCTCCACAGCTGGCTCTGATGCTTGATTATGCCCTTT  
CTGCATCTATAACATTGATGTTTCATTTTAAATTACTTTTTCATCACAGTACATGATGTGGTCTTCAGACATAGACCAGCC  
TCTACGTGTGGCTCTTCTGTTCTTTTTATACATCTTTCAGTGTCAAACCTAAGCTCTAAAAATCATCTCCCTAATATCTCT  
TCACTTGCCAAGAAAATGTACTAGCTTTGTATTATATGTAATACAGCATAAAGCTCTGCCTCATCTGGCCTCCTCCTTT  
CTAGTCTCATTGTAGAAATGATAATTTTTATTAATATTATCAGTGTTAAATTAATTTCTCTCATTTCTAGCATACATA  
TCCATATATTAGTGTTTTTAAATATATCAATCTTTAGTATAGTGGTTATAATCACATATATGTAATAGGATTAGGTT  
TTATTTCTACTTTTATATGAAAGATATCAATAACTATTTTATATCATTATATGTAGTTTTGTGAGAGAACATCCTGAA  
AAATTAACCTTCAATGTTTTTAAAAAGCCATAGTTCTCAGTGTGATGGAGATGGTGAGGATTGGAGAATGTCTATTAGGGAA  
GGCAGTTGTATCATTATCAGAAATAACTGCAAGACTTTGTTGGGGGGAAAGTAATAAGGAGTATGAAAATCTGGAGGT  
TGAAGAGTGGGTAGGAAGAGGAAGTGACAGGTATATTTTGATAAAGCATTGAGGGTTTCATACCTCTCTCTCTTAACC  
AGTAGTACAATGCAAGGGAAAGATCCCATGCTTTAAAGCTGTATTGAACCAAGTTCAAATTCACCTCTGATGCTGACTG  
GTTAACTTTGAGCAAATCACCTTTTATGAGCATCACTTAACTCATTATTAAGAGAAAAATAGAACAGTTCCAATCACCC  
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TTAAGACAACCAAGTAAGTTATATGTGCATAAATTATAGGAGAAATGTTGAAGAAGGCAAGAGAAATAAGGTATGAT  
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TGGGGAAGGAAGAAAATGTCTTTGCTAGAAGATATTTAT  
TAAATATATATATTTTTTATATATAAATATATATAAATATATATATTTTTTATATATATATATATATATATATATATAT  
GACAGAGTCTCCCTTTGTTGTCCAGGTGGAGTGAGTGGTGTGATGTATCCCACTGCAACCTCTGCCTCCAGTTTC  
AAGCGGTTCTCCTAGCTCAGCCTCCCGAGTTGCTGGGACTACGCATGCAAGCTGCCACACCCAGCTAAATTTTGTATTT  
TTAGTAAAGATGGGGTTTACCATTGTTGGCCTGGCTGGTCTCGAACTCTGACCCAGGTGATCAACCTCTCAGCCT  
CCCCAAGTGCTAGGATTACAGGAGTGAGTCACTGAGCTGGCCTAGAAGAGCTATTTTGAAGCTGTCCTTGGGATAGGA  
AGAAAGTCCCTGAGGATCTGACTATAGGTAGGTGCTCAAGTGCTCTAAGGGTGAAAACCTTCTCTGCATAACAGAAGA  
AATTTAGTGCTAAAGAGCCAATGAGAATGATGGAGATGAGGCAGAGAAATTAGGAGAGAGGACAGGATGAGGAAAATTC

Fig. 6.223

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GCCCTGGGAAGGCTGAGAACTGCGGGTATACTCCATAAACAGATCCCTCCCCAGTACTGACAGTGGTTTCGGTGGGTGAG  
GGGTATTGGGGAGGGTACAGGGAGTTGCTAGGGGTGGGAAGACCAATAATATATGTATGTCTTACTTGAAGCCTCAGGA  
GTACCTGAAGTAAGTGATTTTGGATGGTGTGGTGGCATGTGAATCAAAATGAGCTGTGTTGTGTTGGCAAAGCAGGTCA  
ATGAGCCAGCCTTTAGGAAATATCAGAAATTTAGAGGTGAGTTTGGGATTCTTACTGGTCATGAAATTAGGAAGTT  
CAAAATCAATTTTGTGTTAGATCTCAAGGGAGGCAGAGGCCCTTCCATCTTTCAAGAGTTAAGCAGACCATGAAGTCCAAG  
GGTATGCAAGATGGAATGTAAAGTTCTCACTAAGCTTCTAGGATCCAGGGTAAATCAGGAAGCTTAAACACAAATCCC  
CGTGTCCATTGGATAAAACAATTTGATGGATCAGGGAAGCACACCACTTATGATACTAAGATCAGAAAAGAAATTTGTCCT  
AAGTTGTGCATAAAGATTAAATGATATACATATATAAATCATGGTATCTGCTCACTTAGTGTGTTTGTATATATTTTAGT  
TCCTCTCCTGTCCCTTTTTTCCCCTATGGATTTCTGTGGAAGATTGTAGTATATTGAAAGTTCTTTGAAATTTGTAA  
TACTATTGTTAGTTTATAATTTAAAGAAAGCGGCCGGCGTGGTGGCTCACGCCCTGTAATCCCAGCACTTTGGGAGGCC  
GAGGCGGGTGGATCACGAGGTGAGGAGATCGAGACCATCTTGGCTAATATGGTGAAGCCCCGTCTCTACTAAAAATACA  
AAAAATTAGTCTGGGCGTGGTGGCGGGCGCCTGTAGTCCAGCTACTCGGGATGCTGAGGCAGGAGAATGGCGTGAACCC  
GGGAGGCGGAGCTTGCAGTGAGCCAGATAGCGCCACTGCAGTCCGGCCTGGGCGAAAGAGCAAGACTCCGTCTCAAAA  
ACAAAAACAAAAACAAAAACAAAAACAAAAACAAAAACCTGTGTACCAGATTTTATTAAATCTGATTAAATACT  
ATTAAAGAAAGTATAATAAAATAGATAGTATAAGAAAAGGATAATCCAAATAAAAAATATGTTTCTTATTAATAAATG  
TATGTCCTTGCCAAATTTTGAAGTTAAAGCAGCAGATTCTCACTTCTTTAACCCTTATAGCCATTATAGCACTAG  
ATTTTAGAATCCTGAGTCTATGCCATCTGTAATGGCAACAGTCTTACAGGGTGATACAACCTTTTGTAAATCTTAAAG  
AGACTTGAATTTTGGAGCAAATGTTGAGTCTATACGTGGACATTTGTTGTGTAAGAGTGAAGTGAAGTCAAAATTC  
TGAACAAGGTGCTCCCAATAAGATCTGTGAGTCAAGATTGCTTCCCTAGGCTTGAAGTGTTCAGCAAAATTC  
AATTCATAAGGAAATGAGAATCATGAAATGATTATGAATAGCAAGCAGTCTGGAAGAGGAGTGTAGCAAGTATGCCA  
AAGCTTCTGGAATTTATGAAATATTTCCATTATGAGGGCCAGGTGAAATAAGTTGTTCTTTCAGAAATGTGTGACATGG  
CTATTATATATTATCCCCCTAAACTATTTGATCATAAAACAAAAACAACAAAAACAAAACTGATAACAGCAATGACA  
AAACAACTAAATAAAAAAGAAATGCAGTTCTTGAATACAGGATATAAAGGCTCAGTGCATTTTTCATTTTCTTATTAT  
TTCTTTTCCCTGGCTAGGTGAGTTGGCTGTTTTATATTGGCACTAAGAGTTTGATAACCACTACTAGAAATAGTCAAGTAT  
TTGACCTGGCCATGAGTAAAGATGTTTGATTGACAGATGAGTCTATCTGTGTCAAACAGCTTTACCTTGAGAAAAATC  
ACAACCTTGAAGCAGTAACACTTCAAAGAAATATTGAAGATTGTGGCCACTTTCCCCCACCCTCCCCAAATCTATC  
TTCATTTCAAGTTTATTATAAGCAGCTCCTTTGGGTAATTTGGGTTGCGTGCTTTCTCCACCCTCTGTATCTCCCTCT  
TCTTCAGAGCGTCAATCAAGACAAGCAAAAGATTCAAGAAAAAAGGGAATGACCTTTCAGTACCTGAGTCTTCACAC  
CAATTCATCATTGCTAAGTGCTCCAAACTGCTGAGTACAGTATTTAGGAAGTGTCCAGTACATCAGCCTGGCATATAT  
TGTTCTTAACCTTGAGGTTACTAATGCCTATTGCAAATGTGCTTTACGTCAGCCAAATGATGTGTTTAAAAACCTCTATG  
TCTAGCATGAAGAAGAATCTCTTTTCTTCTCATGTTACCTTAAAGATTTTCATACCAATATACATCAGGGAGGAGCAA  
ATTTTGTGTTTATATGTTTACACATGTTATGGTGCACATGAAGACTGGAAACGGTAGTTATTTGTTGGGCATGTGTATGA  
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GCTAATTTTATTCAAATGTAATCCTGACTAATCCATTATTTTGTGTTAACATGTCTACTTGAATTAATGTGTTTTTCCCTCT  
TCTAATTTCTGATCCACAAATTTTATAGCTATTCATTGTATTACTTAATCTAAGTCCACTAAAGATTATCCTTATTCATG  
TTTCTCCATTAAAGACAACGATAATATCATTGAGTTAGCTTAGTTCCGATAGAAATTTGGCTAGCATTTCATTATTTGAT  
TTTCTTGGAGTTTTGCAATTTTTTTTTTTTTTGCATATTTGTCAACATTGTATCTCCTGAAAGCATTGTGTTTAAATA  
CCTATTTCTTGATCAGTAGAATTGATATAGCTGACTTACACGGATCAATAACATGATTTTAAAGAGCATTTCAGGAAAT  
CTCTCATCTGCATTGTCTTTTTTTCTAACACAGTTTGCATATTTACAAGTGAAAATTTTATATTACTTTTACATATTTT  
CCTGTAAAAAATTAGAAAACCTGTAATCTTTTGGCACCCGAAATGTGTCCTTGAATTATTAATTTGTTAATTTGTATGACAT  
CCTTATTTATTAGAGAAGCAATAATTTCTCATGGGAATGCATGATTAACTTTTCAGAGGTCAGAGGTAAGAGTACAGG  
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CATCACAGGAGGGCCCTGATACATGAATATTCGGTCTCCAGGAAGCCAAGTATGATATTCACAACCACATAAATATGTG  
CTAACCTCATTACGGTAATCACAGATAATGTAGTATTTGTGTCTGCCATACAGTTTTGAAGGTAAATATGGAACCTA  
TTTTGGAATTTTACATAACATCTTAAGCTGTATTAATAGAACCAGAATAACCCAAAAATAAGAGGTAAATGAATGCAT  
TGACCTGTCATTCATTGACCTCAGCTGGAATATTGTGCTTCTTTTGGGCTGCAGACAAACAGAAGAGGACTCAGGAG  
AGTGACAAGAGAGGAAGCAAGCTCATGCCCTGTGCATATATAAGTGGTTGAAAGACTGCAATTGTTAGAGAAAATGATG  
CAGTAATTGAACGATGGGTACTGGGAAGAGGCTAGTTCTTTGAGGCTGCTAATCTGAAATATAACAAGTGGATGCACCT  
GCAGTAAAGAGATTAAGCCCCAGAATGAGTCTGGATGTTCTAATGGTCAGAACAGGCATTTTCATATGACATGGCCTGC  
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TGATTTGCTGAAATTTTTCTCTTTTTTGTGTTGGTGTAAACTTTATATGTGCTACTTTTTGCTTGTGGTTTTTTTGTA  
TCTTAGGACAAAGGTATTTCTAATCCCTTTCTTTGCTTCTTGAAGATGCAACCATGCAGAAAATGCATACCTCCTGT  
AAATGTTTCTGCTCTTTTAGTAACTTTGTTTAAATGAGTCATATGTTAGCAATTTTAACTTTTAACTTGGCTCT  
AATTAATGATAATATAGCGTGATTTATGCTCTCTTAAAGAAATGTAGACATAGAAAATGAGAGGTTAAGATGTG  
AAGAAGAGTTTGTATTTTGGGTTAGAAAATTAATATTGGCTTATGTCACTAAGATTAGGCCCTTACTATTTGATTGTAC  
GAGTTTACTTTAAATTTCTAGGCTTTTCAAGGCTTTGTAAAGATAAATTTATTTTAAACAGCTTTAGATTGCGAGAA  
AATGGCAAGATAGTGCAGGGAGTTTCCATATACCCCTCACCCTGCTTTTATTAAAGTCTTATATGAGTATGATAC  
TTTTGTTACAATGAATGAACCAGTATTGGTACATTATTATTTTAAAGTCCCTATTTCATTCATATATCCTTAGTTTTA  
CCTAAGGTTCTTTTTTTCTATTCCAGGGCCCCACTCAGGATACCACATTGCATTTAGTTCTCGTGTTCATTTATCTTT

Fig. 6.224

GCTATAGCAATTTTCTCAGATTTTTCCTTGTTTTTTCATTACCTTGGCAGTTTTGAGGAGTACTGATTAGGTATTTTGTAGA  
AGTCTCTCTCAGTTTGAATTTTCTGATTGATTTTTTCATGATTAGACTGTAGTTAGTGTTTTTGGGGAGAGAGACCACAGAG  
TGTAATGTGCCATTTTTCATCACACTGTCAACATGACTAAAGATGTTAACCTTGATCACCTGATCGAGGTGGATTGG  
TCAGGTTTTTCCACTATAAATGTATTATTTTTCCTTATTTTTATTATTTTCATACCTACCCTTTGGAAGGAAGTCATGA  
TAAACAACCCACACTTAAGAGGGTGTATACTCCATCTCCTTGAAGGCAGAGAATCTACATAAAATATTTGCAATTTCTT  
CTCCACAGAAGATTTGCTTATTCTCCCTCATTTAATTATTCAGCATTATGTATATCAGTATGGACTCATGGATATTTA  
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TTTCACTGCTTTCTAGCATTACACAATCTGAGGCTTATCAACAATATAACTCCTTCTCATCATAGATTACAGCCATTT  
CTCCAAGGAGCACACGTTCTTTTCATTGGAAAATGGTATTA AAAACCAAGATTTGAGCAATAGGTGTGTTTCATTGTTTT  
TGGGTTGTCAATTTCTTTTGGCCTTCTTGGCTGCAGAGCAAGGACATATATTTGTGTATACCAACCTGTGTATGTAC  
CATATCTAACAATCAGGAAGCATAAATAGATAGATAGATAGATAAGCATTAGTTTCATACTGATATTTTTCAAATCTA  
ACTCATTACCACATGGGTCAATTCAGCTTCTTCTCTTGCTTATCTATAATCTTCCACTCCAACAGTGAAAACTACCA  
TCCATCATTTTGCTTACTTAATTGTTCAATTCAGTGGTGTGTTCCATTTATCCTTACTGAGTTGAATACATAAATA  
TAAGCTGAATTTTTCTCAAACCTTAGAAAAATATTTTTCCCCCAAATGTTTTTACCTGCAAACTCTTAAGATTT  
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CAACTTTTTTTTGACGTGGCTAGATGGTTAGGAACACACTGAAGAATAGATTTTCAGTAATGAGCCATCTTCAATGAA  
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GTTGGCATCCTTTTTAGCTGCAGCTTCTTAACTTGTACCACACCCTGACATCATCTTCTCTACATGGCCACACCTCAT  
CCCCCATAGCCAAACATATTTGCATTCATCACTCATTCTGTAGATGCCAAATCAGACATGGTTCTTGCCCTATGGAG  
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ATATAAAATTTTATTTTTCATATTTCTTTTCTAGTGGCATTTAGCAAAAGCACTCCCAGTTTTCATTGAGTCTCTTTAA  
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CACTACCCACACCTCCCAGTGATGTCTGCACTATTTCTCCTCTGGGCTCCATGCAGTAACTTTCTGGGTTTTTTTGGT  
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GTAGCCTTAACCTCTGAGCTCAAGGCATCTCCCACTTCAGCTTCAAGTGGGACTCAGGAGTGCAAACCAACA  
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CTTTGAGGCCCTTAATGAGTGTCCAAGGGAGATTCTCTCTCAAGTCTTCAAGTTCATGGCAGACATTTACCTACCCAGTC  
AGCTTGAATCTGAGCTCATAGAAGTTTTATTTCTGGCTTTTGGCGATCATTTTTTATGCTGTCTCTCTCACTGAGCTC  
CCTTTCTATCTCTCTCTAGTTGGATAATAGTACATATTAATAGTGTACCTTTGACCAAGTATGCTGAGACCTGCTTA  
TAACTAATTTTGCTTGATCTTCATGAATAGTGTTTTGAATAGCATTTTTCTATCCTGTCAGATAGGAAAACTAGAAAA  
CAAAGAATAAGTAACCTTCCCCAAGCTCACATGACTTGTAAAGTGGCAGAGCTGGGATTTGAACCAAGCCCTCTGAAGC

Fig. 6.225

TAAAGCCTGTAGAGTACATGCTCCCTTCTCTCCACATCACTAGCCCTGCTTGTTCACACTCA ATGTGAGAAATCCACTT  
CTCAAGTTTGTCTTGTCTTATTCCAACCTGTTTTGCAATGAATCTCTTTCAACAGCTCTATAGT. .CTGGCACTCACTTG  
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ATTTCTACCTCTGTACAAATAGGCAATATGAAATCTTACCTCAGAGTGTGTTGTGTGAAGATGGAATGAATTAATGGCC  
ATAAGACCTTACAGCTGTGTGCTGTACATAGTGACCCTCACTAATGGTCACTTATAATTCCTTCAACCACTGTAAAG  
GTCCTTTCCACCCAGGTGATGTCCCTATGTCTCAACTGAATGACTGGTTAGGATATCTTTCCATGGGCTACTGTGGCT  
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CCTGCTGCTTCAACCCTGGGTTAACTGAAATTTGAAACCTTTTTCTACTCAAATTCCTTTGATGCTGAAATTCCTCTGC  
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ATTACCATATGAGGAAGTGAGAAATAGGGTTTTCTTTCTAATACACAGAAATAGAAAATAAGATGCTTTTTCTTGGCCAC  
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CCACTCTGGGATGCTGATTTTCAATGATTGATTAACCTTTACATTTCTTTCGGAGTATCTACTGCCAAGCCCCCTCTGGTGC  
CATGCTCTTAAACCAATATTTTCAAGAACATTGCAAAACAGGCTGCCCTGTGCTTTTGAACAGCTTTCAATGACATG  
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GTACTTAGCCCTTAAAGAATGTGATTGATCCTTGATGATGTCGTTCCAGACAACAACAAATACACAAGAACTCTTTTTG  
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CTTTAAAGTGATTTTTATCAAAATGTTTCAATTTTGTGGAACATACTCATGAGCTATTAGCTATAGCTGACTTTTGAGG  
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TCCAAGAGGGCCACTGGAGGCTTAGGGGCTTTGAAGTTTAAACAGCACTGAACTTCCAAAAACAACTTTAATTTTTT  
CTGTTCTGTTTCTTAAACAAAGTCCATGTAATAATGAAATAATTTTGAAGAACATGTAATGAATCCCACTACAGGAT  
GGGTCCCAAAATTAAGTGAATCATAACATGGCTCATGTGAAGAAAGAAATATACTATTTTCAAGCTGTGTATGTTAA

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TGGTATCAGATGCATTTTAAACACCTTCAGTTTTCTCTTTAAATATCTCTTCAATCCCTTACTTTTCTCTATTGT  
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GTGTCTCTGGCTTTTAGGCACACAGCCAGTCGGCAATGGCGGAGGGGTGGCATATAAAGATTCTAGATCTCAAATGC  
CAACCTGGCCAGAAAATAAACTCACTATGTGATACCATTGGAACAAGCTTCTATACCAATGTAGGGGGTGTAGGAGGA  
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GCTGTGCTGAATAAGTGAGAGTCACCTGGCACAGCAGACATCTAGTGTGTGCTAAAGAAATGTACAGAGAATGAGAGAG  
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CAGATGTGCAGGCCACTAGTAGTGAGTGTGACACTCACTGCCTCTCAAGAGAACCTTAGTAGTCAGAAAAGTGAAGAA  
TGACATAGCTTTTTTACACTATATTATGTAGAAAGCTTATTTTTTAATGTTAACCAAGAGCAAGGTCCATAAACTCTAA  
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GGTAGAATTTATTTATTTCTTTGGGTATATACCCAGGAATGGGACTGCTGAGTTGAATGGTAGTTCTGTTTTTAGCCT  
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AAAGGGCCCTAAAGCCTCTATTGTCAAGTATGACTGACCTCTCTTGGTAAAGCGAGACCTAGTTCTGACTGAGATTCTT  
CCAGTCGTTTCATGGTTAACTTTCCATTCAGTTTCAGTTGTATTTCAATGTGTTTCTGCCCCAGTGGAGATTTCAGCATA  
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Fig. 6.227

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 TAAAAAGTTAATCATTATTTTCAGAAAAAAGTTGAGTCAAACCTGAAACAGTGGTACAATGTCAAGAGCAGGAACTTT  
 GCCTTATTAATTTGTGTCTTCCCTAACTCTATGGACTTAGGATCTGAGACTCTAGTTCCTACAACTCATCCATCTGGGG  
 CCTGGCATATGGGAGCTATAAACCCACATCAGCCCTCCTTTGTCTTTTTCCTTAGGGCTGCCCTAGGGAAGAAAGCTAA  
 TGTGTATAACATCTAGCATTATGCCAGGTATGTGCCAGAGCTCAAAAACTATAGCTATTATTGTATTATATACTTTTG  
 CTCTATTTTATACTCCTGGTTAATGACGGAGAGCTCTGTGAGGGGCTGCTAGAGGGAAGGTTCAATTATTTTGAAG  
 CTTTAGTTCTTCCACATTTCACTTTGTAATGTTTGCCTTGCCTTGTATTTATTAAACAATAGTTTACTATACTCGTTCC  
 TAAATATTAAGTATAGCTTATATGCCCTGTAAATCTTTCTCAGTGGCATAACAATAATTTAAATATCTGCTTGAAAAA  
 TCTCACCAGCATTCAATTTAATGTGGCTTAGAATGTTATATAATATGAAAAAGTACGTGTTCTTTTCAGAAATTAGTTC  
 CAAAGAACTCCCTATATCTAGAGACAGGCTGTGAGAAATGGAGAAAGTTGAGGAGTGTCTCTGTTAGGAATCTTACTACT  
 GCTTTTAAATTTTATGGAACACCTATTAAATTGCTTCGCAGCTAGGTTATGAGGAAGGGGAGCCCTGCTCACTCTTTTA  
 AAGTTAAAGTGAAAAAGTTACTTGCAGGTGATTAGGGAAAACCATCTCAGAGGAGTGGACTGTTGGCATGGAGACCCCA  
 CATATACTCTTGGGGGATGGCAAAAACTTGAGAGAGGATGCTTATTTCTCACCTCCTAAAAATGCCCTTTCCAGCTTT  
 CTGTGGTGAGAGAGAATGAGACAGCAGTCATACCTAACAGTTGGTGAACAGTTCTATGGGAGTGAGGGAAGTGAGGG  
 GCCTAGGATGAGTCAGAAACATGTACATACGGAAGGGAGAGAGACAATCCTGATTAAATGTGCCTTCTTGCAAAAAAT  
 ATATATATTTCCACATTTGATACAAAGTGAAGTATATAACCTTGACAAAGCGATATCTGTGCAAAAAAATTAGAAAA  
 ATTGCTTTTAAATAAACAGTCCCTTCAAAGATGTGAGGACAGAGACTTTCTGAGAAAAATGTTTCCAACTTTTAAGGAA  
 CAAATAGTATGTTATATAAAATTTTCTAGAGTTGTGGAACAGAAATCAACTTTTCAATTCATTCTATCAAGTAGACCTA  
 TTTGCAATAAGGAAGGAGTCCCTCAACCAATCTTACTTTTCGTTAGATAAAATCTTAAATCAACTTGGTAAGATTGAAT  
 CTTGCATTTTGTAAAAGATTCTAGCTCATGTCAAATAAGGCCGAGTCTGTAAATGTACATATAGTTAATTTTGATCAA  
 ATCTGGTACAGAAATCCATCATATTAATATGGTGAAGAAAAAGCAATAGACTTGTATTGACAGGTGCCACAGTGGCAT  
 TTGACTAAACTTAATATCCATTTGTTGTTAGTTTAAAAAGGATGCAGTGAATAGCAACAGAAGAATATAGTGT  
 TTATTTCAATGGTGAACCAATTTTAAAGTGTGAGTCGTTTCTATTAAAGTCAGCTTAGTTATAAGCAATAAGACGTAA  
 CATAATATTTGTATGTAATATTTGTTTGGGAAGTTGTATAGTTATTGTCAAGTTATTGTTCTAGTACAACAACCTTGAAA  
 CATAAAATATAAAATGAAACTGACTTTTATAGCTATGTGGGTATTTTACCTGGAAGAGCCAAAGGAATTAGTTGAAATGT  
 TATTAGAAATGATTGAGTAATTCAGATAGGTAGCCAAATACAAAATTACATATAAGAAAGCTATTAGCTTTTTTATAGA  
 AAGTAATAATCAGTTAGATATTATAATGAAAAAATAAAATACCTCTTTATTACTTACTTTCTTACTGTTGTCCAGGC  
 TGGAGTACAATGGCACAATCTCAGCTCACTGCAACCTTACCTCCTAGGCTCAAGCAATCTTCTGCTTCAGCCTCTTG  
 AGTAGCTAGGTCTACAGACATCCACCACCCTGGACAGTTTTCAAAAATTTTGTAGAGATGGGGTCTTGCTGT  
 GTTCCCTAGGCTGGTCTCAAACCTCCTGGGCTCAAGCAATCCGCTGTGTTGACCTCTCAAGGTGCTGGGATTATAGGTG  
 TGAACCACTGTGCCCAGCAATCTTTTAAATAGCACAAGATTCTAGTCACAAAAACATACTACACCTATATTTATGA  
 TGAATAATATAAGAAATAGAAGGTTTTTTTGGTATTGTGTGAAGAAAAACAAAATGTCTTAACTAATGCTAAACA  
 ATCCACAATATTCTCCACTATAGGCAATTTCCAATCATTTTTATTTTGTATTAAAGTATTCTAAAAATCAAG  
 CTAACATGGGAAAAATCAAGAAAAAGTTGAAATAAAGCACAGTGGGTAAAGGTTGGAAGGATGTAGAACACACCATTTCCA  
 GAGATTATATCATAAAATACAGTAACATATATCATGTAATATAATATTGTAAGAATTAGGACGGTGGCTCAAATG  
 AAGAATTAGATAAAGTTGATTTGGATAGACTATAGATTTCAAATAAGACTCATTATGTATTGTGTGTGTGTGTGT  
 GTGTGTGACTGAAGTAGCATTTTATTCAATGAGAAAAGGGATGATTATTCAATAAATGGTGTGAAAGCAACAGCTATC  
 GTTTGGGAAAAATATAAAGTTAGATTCTTTCTTTAAACCTTATATAAAAAATACATTGGATATATTTTATTAA  
 TATTTATTTAAATAAAGATTTCATTAATATATAATATAATTTTATTAATGTAACAATAAAAGTAGTTTATGTTAA  
 ATTACTAAAAATAAAATAAAATGAGTATTTAAATTTCAACATAGGGAGGATATTTCTAAGCATATCACTAGAGCGGAA  
 AGCATGAAGAAAATGTCTGATAGATGTGTATACATTAAGGAATCAAATTTTCTACACATCAAAAAACCCATAAAGAAA  
 ACGTAAAGGCAAATGAAAAGGGTGGGATTCTATTTCCAGTGTACTAAAGAGACATTGACTTTAATGTCTTAAAAATCC  
 TTAGAAATTCGTCCAGGTGGGGTGGCTCACGCCTATAATCCAGCACTTTGGGAGGCTGGGGCAGGTGGATCACGAGGTC  
 AGGAGTTTGAGACCAGCCTGACCAACATGGTGAAACCCGCTCTCTACTAAAAAATACAAAAATTAGCCAGGTGTGGTGG  
 CAGTGCCCTGTAATCCCAGCTACTTAGGAGGCTGAGATAGGAGAATCTCTTGAACCTGGTAGGCGGAGGTTGCAGTAAG  
 CTGAGTCATGCCACTGCCTTCAGCCTGGGCGACAGAGTGAGACTCTGTCTCAAAAAAATAAATTTCTAGAAATTA  
 TAAGGAAAAAATGACCTTTCTTCCAGGAAAAATGAACACAATCCATAAGAAACACAATTGGTGAGTTACATGAATAAAA  
 CCCCACCTTTAAAGAAATACAAATTAACAATAGTGAACTAACATTTTCTCTAAAGAGTATTCAAGATTAAAAAACAAA  
 GTCAAACTAGATGATAACAAATTCAGCGTATTGACTAAAGTCAGGACATTCTTATTATTAGCAATGAAAGTGAAAGT  
 TTGAGTAGCTTTCTAGAAGAGAATTCAAGTCACACTATGAACCAACAATTTTACTTTGAAGAAATTTATCCTAAGAAAA  
 AATTAAGAATATGTGAAAAGATTAGTTACATCAATGTTTATTATAGTGGAAAACTGAAAATGTGCCAAGAAAAAAT  
 GAGCCAAATATTGAGCAGCGGAATTAGCACAATATACCTTGATATGTTATCAAGGTAAATGTGTATGATAGGATACTG  
 ATGCATAAGGATAATTTTAAACATGTAGATTTCATTATGTGTAAGAAAAATAAAAAATACATAAATGAGAGCCC  
 ATTTTTATAATAAAAAATATAGTCATTCAAGGAACATGTGACGGACATCACAAAATACCAACCAACAGGTATGGT  
 TCAAAGTGTATAGGTGGTTTTTCAGCACATAGATTACCCCTAGCAAAGAGACCTCTGTGACACTTCGTTTCTTCATCTG  
 TGAAATAAAGGAATCATACTAGATTAGTTCTAAATGCTTTTAGCAAAAAATTTTATAATTCTATGAGTATTGATGGTT  
 AATAACCTTGAGAAAATTGTTATTATTTATTGAACCTTTGGAGTTAGTAGAGTAAACCAAGTTTATCCTGAGCTATCCC

Fig. 6.22b



[illegible]

Fig. 6.229

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TGGCTGGTCTCTTTACCTCTGAGGTTCTTTTGCTTTTTATGTAATTGGATTTTAACTCAGAAGACTGTAAGGTTAAAG  
ATGATAATGTATAAAATCAGTACTCTGAGTAATGATCAAAATTTTCTGTTGCCATCCACACATTTGAGTGAGATGTAGT  
GAGTGCTAGAAAATAAAGCAGTTTCGTATCAAAAAGGGTGTGTTGAAAGAAATAAATAATCCTTGAGAAACACTGTCAT  
GCAATCTCATATCTAGAAATTGTGCCTATGTTCTGTCTATAAATTGATGAATTGCGAGGGTGTACATTTAGGACACAC  
ATTGACACTACATATGACATTTGTAAAAACACTTGCTAATTCAGCTAACAGCTCGCTTCTCCCCCTCTCCCCACTACTC  
ACTGTGGAGAGAGCTTCCAGCTAATAGCTTAGAATCTCCAGACTAACCAACCATTGATGGAACCAAGGTGCTATGTGAT  
TGTAGGAATTTATTTGTGCTCTGAATGTTAACTAAAAGTAATGGGCTTCTTATTTGTCTCTTTCTTTTGTGTTATA  
GACGGCAAAGACTGTTTCTCATCAGTCTCATATAGCTAAATTAGATTTATCTCTCATGCTGACTGATTAAGGGGTTAA  
ATTCTGGGCACGTTGTCCCCAGTCTCTGAAATCCATGTCAGAATAGAAGTGCTCATTACCAGACTCGATGAGGAGC  
TCCTTTTCCAGAACTTCTCTCTGCTACACTCTAAGGACCAAGCACCTCTGCCTAAATTCCAAGCAACCATGGCCTGTGG  
CAGTCTTGGAACTTTGTCCCTCTGGCATGGGTAGAAGTACGCTCAATTGGGTAAATCAATCCCTGAGTTCTTCTTCAA  
TGAATGAGAGAATCCAGGAATGTGTTGCCAGTTGCCTTTTCTTGTACCTAGTTTCTTCTGCTGAGAATGATGACAGT  
CTATTTCCACACCTCCCCCTCTGCCACTACAGGATTTATGGTCTGCATGCCCCAGTTGTGAAGCTGGCATGTAGCATT  
TGTTGCCACAGGCTGTGAGTGTGTTAGAAGTTTGTGTTGTTATTTCCAGGGCTACAGTTTGAATATTGAAGGAACAAAC  
AGCAAAACAATTCAGAGGTCAGCTGTGACTGCTTCTCATTTGGAGAGCTTATTTATGTCTGTATATTCTATACCTCAG  
ATTCCACATAACTTGTTTTTTCCACCTTCATTGCTTTGGTTAGATGCTTTCAAGTGCAATTTTCTCTAAGAAATCTC  
CATAGAAGAGTTGTTTACTTGAAGTGATGGGTGAGCAAAGTTTGCCTGACGTGGAACCTCAGTAACTTTCCCTAAGGA  
AAAGTTCTGGCGTGTAGGGGTGGGCGCTTCCATCCAGACGGATGGGAACATAGCCAAGCAGCCAGGAGACACATTGA  
CTTGTGACCACTGGGAAGGATGCCCTAGCCAGAAAAGTCCAGCAGCTGGGTCTGTTAATCTTTTCTGAATGAACAGCA  
GGCAGTTGACCTCTCTAAACCTGTCTGGATTCTTTATATCTTTGTAGTCACCTTTTACCCCTCAAGAATTTCCCT  
ATAAGTTGCTTTAATAAGACTCTTTTGGCCACTTTCCCTGAGCTTCTGAGTTGAATATGAATTTCACTAATTTGGT  
GAAAGAAACCACCATGACCTTGATAAAGCCATTTCTACTCTGTTTCTTCTTCTTCTAAGAATTTGTTCAAGCAAGT  
ATTTGAGTCTAAATGGATCCACTTGGACATTTTAATAATTATCATGAACCTCAGTATCTTAAAGTGTTGGCTAAACAG  
GCTCAAAAATTCAGATAGTGAATCTACTTTCTCTCTCCCTCCTCCAGATTTAAGTGGATTAAATTCATTCTACTATGC  
CAGCACCTGAGTACAGAATAATTTATTTCTGTGTCTGTTTCATGATGAAAGTCCAGCTGGCATTAGCTCAAATTTATGCAG  
CTGGCTATTAATTGAAGAAAACCTCCCTGTCACTCCTCAGTCAAACATGATCTGATTGAGCAGATCCTTTTCACTCTCA  
TCTCTTCTATTTACCAGTAGAATAAATGTAATAAATCTTCACTTGGCTCTGCTTGTCTATGGATTGTAAATTACCTGGC  
AGCATGCAGACTGACCACATTACTGTTTGGAGGCGGCTGTTTTCAGTTGATTAGTATTTCTAGAAGAGTTTTCACAT  
TTCATCTCTGAGGCTGAATGATGTCTCACTAGCAGGAATAATTGTAGTCTGCCTTTTTCTTACATAGTATGATAAAA  
TTTCAATCTAATTTCAACAAGATGTCAAATCTAGCACCTGTAGGGCAGGTGTTGGTCTTCTATGAATTGATTATATGT  
TTTTCTATCATACTGGATGGTGTACAAGCCCAGGTTGTATTTTAAATAGAATTTCAAGAGAGAGATTTGTTCTGGAATT  
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GAGATGCTATAGTATGTTAACAATTGTGGAACCTTTTTCATAAGATGAAATCTGTGTCAGAAATGAGGGAGCAGAAATCT  
TGTGGGAGTGCTAAAATGGTTTCATCAATTTGATCTCCACAGCATATGAGAATTCACCAATTATATTACTCTCTGAAAAT  
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GCTGCATGACCACTCATTATTATACGCTCAGCCCTGAAAATGAACCTTAAAGTGGTAAATCATACCTTGGCAGGATTTG  
GGTGGCTGTGAGGGATTAGTAGGATTTTAGCAACAGGACTGGAAGAAAGAAATCAGAATCTGGCAGAGAAAAAATAGC  
ACTAGGATACTAGAAGAGACCTGGGAGAACTAGCTTGACCTTAGAGGCTGGTCTTGTGAGTCATTTGAGAAATAGTATC  
AAAAGGGCATAAGAGGGCCCGGCATAGATTAGGCTATTTGGGGTTACAGGAGATCCAAAGCTAGAAGGGGCAACAAAAC  
ATTGTGGTATGAGGCCATCCTAATTTGAACATCAGGCACAGGATCTAGTGTCCATGAAGTAGATCTCAGGGAATGGGCA  
GCTTGAGAAGAAGAGTAGATCATGCAGAAGCCAGCAGTCAACCTTAGATCCAGATCTGAGTGTGATGACCTAGATGCAA  
TTAAATCCTTATAATGGGTCCACCTGGCAGGATTTCTTTCAGGAACCTCAGGCTGAGCCTGAAGTGAAGTATGATCAG  
TGAAGGGAAGGTAAAGAACTATAAGTTGATAGACTTGCAAAATGGAGAGGCTGCTTTTAGGAAACCAATTGATAATAGTA  
TCAATCCCATGATAATATATGTGATTGCCCTTTTATAAGGCCATGTGCTTTCTGCACAATTATGATAAAGTATTTAGC  
CAAATTTGTATTTCCCTATATAAAGGGGAGGAGATAGTATCCCATGGGGAATTCCTTCCCATATTATAAATGGTAGAC  
AACTTAAGCAAAAATGTTTTTACTCATATGAACACTGTTGAAGTATAAAGCCAGGTATTTAAGTCATGATAGGTGTTTA  
TTTACTTTGAACATTTGCCAGAAGTTTGTATGATGGGTATATTTGTAGACTGGGTGTTAGAGGTTGTTATATTCTAAAAA  
GATATCTTCTGATTAATTTTCTTCATTTATAAAAAAATCTATTTTGATAACATTTAATTTATGAACCTTTGGTGTCTAG  
TTACACTTTTATACATTTTGGTTGTACATTTCCCTGTAATGCTTACAGAGACAGCCAGTCAGGCAATAATTGCTACATACT  
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AGCCTAGTAGAGGATGGGAACCTGATGTAGTATCTTGTAAATGTTCACAGCATGGTACACTTGCTTCTTCAGATGCCATTA  
TTAAGGGCGTCTTTCTTTAAATCTGAGATCCCTAACTCAGCTTATGCCAGAATGATGAGAATTAGACCTTCTTAAG  
GTCTTCTTTCTTCTTAAATGAATATTGAATAAATCTATAAGATAAAAAATAATCCTACCACCAAGCCCCAATTAAGAC  
TGGATTTTAACTTGCTCTTCTCAGCACAATGACACAACAGAGGACACAGAGGTTAATGGAATGTCTTTGGAGCAAAGG  
AGATTTCAAACCAACAGTTTGTAGATTTGATGATCAGCTCTGCAAAATGTTTAAAGAAAGATTTCTTACTCATATCTT  
ATAAGTTAAGACTATAAATGGTTTAAATGGGGGAGGATGTGACAGGATTTGAAAATCTTCCCTTCTTTGTGGCTATGA  
GAATTCACACTGAGCAACAGGGGAAGAGAAGGAACCTAGAACTTGGAAATGAGCCTGTGTGTGGGCCCTCATTTGTTCCAGGA  
TTTACAAAGGGCTACGCTGTCTCATATTAATAAATAGGCTCCTGCTCCTTGTGCCAGCTTAATTGCCACCTTGGCTCC  
CGAACAAGAAATCACAATTGAGGCAAAACATGTTTGTCTATTGAAGGCAAAACCTCCTTAGAGCAATTTTGGGGTGT  
TTTTCCATTTAATTTTTTAACTTGCAAGAAATAGCCCTTTTTTTTCTGTTTTTTTGGTTTTTTTTTGTTCGTTTTTTTA

Fig. 6.236

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AATGATGTACACTTGTGCTGTTAAGTTTCAGCATGGAATACAGGCTTTATGTATTTAGGCAGTAATGCTGAGTTAGATA  
TTGGTACCAAAAAAATGAAAGAAAGAGAGCAAGAGGACAGCACATGTCAAAATGCCTGATAGAACTGCATGGACAGAA  
CTAAATGTGCTTCCCTACTGTAGTTACACGTATAAGTCACATCTCAAAGCGTGTTCCTCAGGTTAGCATCAATATCAC  
CTAGGAACCTTGCTGGAGATGCAAAATTATCTGGTTCCATCTCAGGCCTAATGAATCAGAACTCTAGGTGGAAGGGAGCA  
GTCCAGCAACCTGCATTTTACAAAGACCTCCAGGACACTCTGATGTATGCTAGAGTCTGAGATCCACTGGTGCAAGAA  
TACCATAGGACAGATGTACACTAACTAACTAGTTCTGTTTCTCTTAAATGACTTTGACAATATTTAGAATTTTGAAG  
AATGGTATAGAAATTCATAGTTTCGTGTGTGTGTGTTTGTGTATGTATGTGTCTGTGTGTGTGTTTGTAGCAGAAATCT  
ATTTTAGAAAAATATGGGTAGACTTTTATTAGTTTGTGTTATTTTGTGTTATTTTGAAGAAATTAAGAGGTAAGCAGAGA  
AGTATAGCCAGCTACTTCCATAATTTTGTAGGAATAATGAAGTTTATTCTAGCAGAAAGTTATATCTTATGGAATAACT  
TCTCTAATATTCTCTCTAGACATATATTCTTTTGTAGGCAGGAACACAAAAGAAATTTGGCTTCTTCATCAAGTTCAA  
AGAAATGGTGTGTTTAAATTATGTAGAGAAGTAATTTCTATTTCTCAGAGAAATGGGTAGACAGATATTAGTAATTTAACT  
CTCTTCTTAAGTAATGGCTGCTATAGCTCTTACCAACACTGAAAGAAAGTAGAGTCAAATAGATTTAAATCTGGCTAGTG  
ATTAGAATTTTTTGGGGGTAGGGTGGGTGAAACTGTATTGCAGGGAGGTACGTTGTAATAAGACAGCTAGTTATTATG  
CACTACCTCCAGTTCTTTGACATGATAGCTAAGGGCATAGACAAAATCTGAACCTGTGGTCTTTGTACATATCTGC  
ATTCAGATTAAATCCTTAACAAATATTTTGTGGAGCACCTACCATGGGCTTATCACTATAATGGGCTAAGGTTGTACAG  
TGAGCAAGATACTCACATATGTGATTCTTGTGAAGCCAGAGGTCCAGTGGTAAAGCTAGATGAGTAAACATCAATTACA  
ATGAAGTATAATCACTTCCAGGATGAGGCAGAAATATAGGATGTTATGCAAGCAGTCATCCTTGATTTTAGGACTGGGTG  
ATGTGGAGTTCATGAATGGTTCATGGAAGAGGCACTAAAGCTACAGTGTGAATAGAAATTAGCAAGATGATGGACAGG  
GCAGGCAGAGACAAGAGCATATGCAAAAGTTGAAAGTGGAGAGTTCTTGACATTACCACATTACTGAATGTGCATATGG  
TGGAGTTTAGGGTGCAGAGAGGACAGTTGCACATGCTCTGGAGAATGATGGGAGATGAAGCTGAGAATAATACAAGGAA  
GAGAAAAATACAGGCCTTGCTATCCATGTTAAGAATTCGGACTTCATTCCAACAAAAGGAAAGTCTTTGACAGTTGTGTA  
GTATTTGGCTGTGCTGTAGAGAGTGTATTGGGGAGGACAGTGTGAAGGAAAGGAGACAGCTGGGACATTGCTGCAA  
TAATTCAGACCGGTACTCATGGCTTGGACCAGCAGCAAGGGGAGAATGAAAGTAAAGAGATTTAGGAAATAGCTACTT  
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ACAGTAGGCCATTCACTGAGTTTGGGGTCCAGCAAGAGGAGTGAGTTTGGGGTGAATTTATGTGTTCCATTTGGGCTA  
GTAGGGTCTGAGAAGTCTGTGGTTGTCCAGTAGAGATGTCCAATAAACTGTGGAAAATGCAATCCCTTAGGCCCTCTTT  
ATTCTCATAAATACTTCTCATGCTTTTTTACAGCAGAGGCTAAAGCCAAAAAATTTTACAGTTGTTGATTACTCCCAT  
AGTGATTGGGCCACTACTCTCGATGTCACTTTTAAAGTTTATGTGAATTTTAGCGTTGAGAAATTTAGCATTGAGCAA  
TTTTTCTGCACAAAATCCTAGAAAGCAACTTAGTTTACTCATGTAAGCTGCAATTTTACAGTTGTTGATTACTCCCAT  
TCAGTTGGGATTTTACTTCAACAGTGGAACTATGACACAACAGGGATGGTCTAACCCCAATTTGAGCACTCTGTTCTC  
ATTTTCATTAGGAATCACTTCCCTGTAATCATAAATGGAATATATTTACTGTAGACATGTTGTTTGGTGAAGCAAC  
ACTAAAAATGAGTAGATGAATATAACAGCTACAGGATAAATAAGAGTTCCCATTTTTTAAAGAAAGGACTATGTTTAC  
AACACAGCTCTCCTTAATGTATAGTGTTATTATAGCAGTGAATTTTCAAATAAATATTTAAATTTGGAATGTTAGAAG  
TTTTCTTCTATCATATCAAATAAGTGAAGGCCACCTGTTTATGATTACATATTCAAGTGATGTTCTCAAAAACTAA  
AGAAAAATCTCATATAAATTATAAATGATTCTGCAAGTTTCACTTAACATTTTCTCCATCTTATGAAGCTTCTGAAG  
TTATTTTACTTTTGAAGGCCACAGACAGAAAAATTAATATAAATGAGATAAATTTCACTAGCCTTGAGAATAAAGAG  
AGCAAGGATAGTCATCAACACAATTAAGAATGRCCAATCCTATTAATGTTTTCAAATTACCAATTAGAAAAGTTAGG  
AAGCATGAATAATTTATTTCTGACAACATATCTTTTTAATATCTGCATTACTTTGGTCKGCTAAGGAGATAAACCTAC  
TCATGTGACATACCATATGTAACATTTTCCTAATTAATACTGGAAGCTTCTATGTGAATACAACTTTCTGCTCA  
TACATAATGTAGACTACAGGCAGACAGTTAAGAGTTGGTCAAAGCTGTCAAAGCTGTTTTATGGAAATCTCATCTTCT  
TTTCTGTGCTCTTTATCCTAGTCCAGGCTCTGCAATCTTTTACTCTACAGTACTTAGCTAATACAGTGTTTATCCT  
CACATTCATCATAGCTTTTATATTAACCACTCAGCAAAATATGTGTGATGCACATACAGCACAACTATATAT  
TTAATCATCTAGTAACTATATTAATCTTCTGTAACCTCAGATAAGCCTGTTTAAATTTGGGGGTGGGTCGTATTGTA  
GCATACCAATGGTTCATATACCAAGTATATATTTGTCTACTATGTGGAACAGTATTATATTTAAACTGAAGTCTTA  
TTTCATGTAGGTTGTACCAATTTGTGGTGGTAAACATTGTATTTAGGTCATTACAAAGAGTACAGAAATACAGATTA  
GCCATATTTTTCTATAGTGCCATTCACTGTAATAGGTACACAATACATCTCATATTAAGAAAAAGAGTCTTTTCAAA  
AGCCTGTAAGGGTCTGAATAAAGGTCTTAGAAATGTGTCATAACAGCTGAATCTAAGAGATTTGGAAAAAGTGGGAGA  
AGTTAAATATTGCAATGCATAGAGCTAAGACTTCTTCATTGAAAGTTGGGTAGTTCCAACATTCTGTGGAAAACTCT  
TAAAGTAGCCAAAAGGTAATTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGGCTGAGTCTGCTCTGTTGCCAG  
GCTGGAGTGCAGTGGCATGATCTCGGCTCACTGCAAGCTCYGCTCCCGGGTTCACGCCATTCTCTGCTCAGCCTCC  
CGAGTAGCTGGGACTACAGGTGCCTGCCACCAGCCTGGCTAATTTTTTGTATTTTGTAGTAGAGACAGGGTTTCATCGT  
GTTAGCCAGGATGGTCTCAATCTCCTGACCTGTGATTACCCATCTCGGCCCTCCAAAGTGTGGGATTACAGGCGTG  
AGCCACCATGCCTGGCCCAAAGCTAATTTTTTAAATTTTCCAGATAGAATTCATGTGTATTGATATATTTCCATTTT  
CGTGTATCCATATTAACCAATCCATGGTATTTTTATTCTTTGTTTTAGATATTCTAATCATTTACAGCACTTTTCATT  
ACACATCTGCCAGATTTCTGTGTTGCTAAATTTAGACATATCTTTAAGTCTTGAAGAGATCAACTTTTTTCAGCAC  
AACCCATCCCAACAATGTAATGTTACTGTGCTATATTAAGACAACACATGTGCTGATCTTTTTCAGGCATTTCAGAA  
TTTTTATTTGAATGTCAAGTATGTCAAGGCAAGCTCATCTAGCGATTTTAGGATTTCCAGGACCTGCCATTTATAAAC  
TTCTTGAAGAAAAATTAACCCCTCAAATGGGTGTTGACATCCAGTTTGCCTTTATAGCTCTCTGATGCCTTTTAA  
AACTATATTTACCCATCTTATGTCAATAAAAGGATGTATTTATTATAAGTTGTGGCAGATAGTGTGTTTATAGACAA  
TTTATAGCCCAGCTGTTAAAGGTAAAGCAAGAAATATGCTACTTTGCTGTATTTTCCAGTGATTTATGTAAGTAT

Fig. 6. 231

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TTATTCCCTGTAGGAAAAAGTTGAAACACTATTGTTGACAACAGGGCCCAAATAGGTATCAGCTTGATGTACTTTATCA  
CATATTATCTTTTTGTTTTTGCATCATCCCTAGGAGGTAAATATGTAACACTTTGGTTTTCAT. CATCACACAGATT  
ATTAGGCAAATCAACAGAATGAAATTAAAGTTATATTATCTAATTGAAAAAGCCTTCACCTTATATTTTCAAGCATTAG  
TTCTTATCCACTTTCAATCACCTGGGGAACCTTTAAAAAATCTGATGCCCTGGGCCAGACACCCAGAAAAATGACATCAGA  
CTTTCTGGGGACAGGACCCAGGTGACTGTATTTTCTAAATGTCTTTTCATGACTCCGCTGCTTTAGAGGTTTCACAGACT  
TCCACTTAAAGAACTGCTGGTTAAGAAATGCATCCCTACTTGCTCGGACTCCCAGGGATATCACTTTTTCACCTGTTCCCT  
ATCATTTAGAAAAAATGATTGAAATCAGCTAGATACATGATAGAGGACCCCCCCCCACACACACACACACCAATC  
TAAGCACAAAATATCTTGTGTCTCAATAGTTTGCATGGATAAGTAATGCAGAATAAGCATCATACCCAATATTAAT  
AAATACTTAACAAGAAGCCCAAGATTTTACCTTGTTCCTATTTTTTCTTCAGCCATCACATTCAAACCTGGCCCAA  
GGTTTTCTCACATCTGGCCTCCATCACCACCACTACTGCTTTGGCCTGGCCTTTTGTCAAGCTAGAAATTGCCAGAATT  
TCCTGACAACAGGCTCTGTAAGATTGAGTTTAGAGCTTACACTTTGGCTGGAGTTTCATCTTCTTAAAAAGAGACTGTGA  
TATGTAATCCACAACCTGAAATCTCATTGGCTCTCCATTGCTTACCAATAACCCAAAATCTCTACTCAGGAAGTCTCT  
GGATGGTGTAACATCCATTGCACACAGGTTTCATCCACAAGGCTCTTGGTAATGGGTAACTTCTGTTAGGTTGGGTTCTT  
TGCTGCTCTTGTGGAAGAGTCTTCAACCCCACTTCTGTATACCCCTGACACTCACCTGAGACCCAGCTGAAACAGACCT  
TGTCATCTCGGACCTGCCCTTGGTTCTGTTGAAAGAATTAGCCACCAGATCCTTGAGGCTGTCTCAGGACTTTTGTCTT  
CACCTTTATTATAACAATTGGAATGCAGGCAAAATAGTGTTCAGTTACTAAAATAAACTATAGACCATAACAATATG  
TTGTTTTGTGCTTATTTAACTCGCAGGGGAAAATACCCATATTTTTTAAAGACTCTGGATTAAAAAATCTGGTTGATTA  
TATGAGAATATTGTTGGCTTGTCTGTTGATTTTGTCTTTTTTGGGTTGCCAATAAAATTTTAGAGCAAGAAAATCAAT  
CTCTGGAAAATATGTCTAAAATGCAAGAGAAAATCCAAGAAAATAGCTAGATTTCAATTAACATGTGAAAAGCAATTT  
CTTAATATATACATGTTTATTTTACATGGATAAATTTATGTAAGTTATGTAATAAATAATCTTTTAGGTTGGGTTT  
AGGGGAGGTTTTAGGTTTGGGTTGCAGCAGAGGCTTTTTAGCTGATTCAAATATCTAGTTTCAAATACTCTGCCCCA  
CATGATTTTTAGATATGACTTAGCCTTAATTGCTGACTCAGATTTTACCTTTTAAAAAGCAATTGTGCTTTTTTCATAT  
ACACTATCAAACAAGATTATAAGATATTTAAGGTAAGAAAGTAAAAGGGCATCCACTAATGATCATCAGAATCACCTG  
GAAGGGCCAATAAGCCACACATTACCAGGCCCCCTCCCAAAATTTCTAATTCTGTAGATCTGTGGTACAGCTCCAAT  
TTTTGCTTCTAATAAGACCCCAAGTGACACTAATGCTGCTAGTCTGGAGACCACACTTTGAGAATCACTGCATTAAAT  
TAACAATTTTATTGGTTGAGTTTTACCACAGTGTGCATATCTGTTGACTAACAATGAATAGCTTTGTTGTGCGCCAAAC  
ACTGTAATGTTTCCAAATATCCATATGTAGTCACAGGCCAGAGAAACAAACCACATCTATTAAGACTGTTTTGTTG  
TTGTTTGACCCCCCACCCTTTAGTGTTTAATTACATCAATCCTGGAGAAAATAACTGTTTTTCAATTTGGGCGATTA  
CAGATTTGCTAAGGCAATAGAAAATCTATCTTAAACCTTTAGATTTTTAGTCTTCTAGTAAATATAAGCATATGAGTT  
CCAAGCAAATCTGAGTTTTAAAAAATTTAATAAAATGACAAATGTTTTCAATAAAATGGAGAGGCCCAATTTCTTG  
TACAAATATTCTAAAAATAGATGATAAAAGTTCTAAGTGCCATTTTTTGAAAGATCAGCAAAATAATTCTACAAGTATT  
TGTGGGCATGTTATCTTTCTATGATACTGGTTATAAACTTAAGTTATATGAAGACAGTGTGTTAGTTAAATTATGTTT  
TAGTCTTACCTTAAGGAAATAAAAAACAATAAGGCTCTTAGGGCTTTCTTCTGCACCACTGCAGTACTTGCTAACATGT  
TTAATAACATGTTAGCTGAGATGATAAACTCTAGGACAGCGGTGGCTTGGAGATACTAATGGAATGCCAGTCAAA  
AAGAGCCTGGACTAGACTGAGGTCTGAAGACTCCAAATACTTTCTGTTATCCACCACTTCTCAGATGGTCCAATCA  
TGCTACACTCAGTCTAGGGCAATGACCCTGAGGAATGGTATGTTTGGCAAAAAGAAACCAAGAAGGCTACTGCCATG  
CTTTAAGATTTTCCATATATCTTTTTCAGCATCTTGAATGGGGTTTCTGAAAGTCTGAGGAGTGAAGTGTGACCAAAA  
TGGCTGATATTTGAGCTCAAAGAACTTAAATTTTAGGTAAGGATACTAAGACCGACTTAAAAAGTATAGTATCAAT  
AATTTACATTTCTTTAGCTAAGAATTTTTCAGACCACTTCAGTGCAGATCACATTGACTGATTCTCTAAACCACTCTATG  
AAGTGGGCAAGTGATGGTCTCATTTTTCAATGAGGACTAAGGTTTATTTAATTCAAGTGATTAACCTTTCAAACATC  
TAGTGAAGCTAGCCAGATGCATTTGGCTCACATCTGTAATCTCAACACTTTGGGAGGCTGAGGAGGAGATCCCCATGA  
GGTCAGGAGTTCAAGACCAGCCTGGCCAAATGGTGAAGAACCCATCTCTACTAAAAATACAGAAATTAGCTGGGCTAGG  
TGGTGGCAGGTGCTGTAATCCAGCTACTCAGGAGGCTGAGGACAGGAGATGGCTTGAACCCAGGAGGCGAGAGTTAC  
AGTGTGCTGAGATAACGCCACGGCACTCTAGCCTGGGTGAGAGTGATATTCATCTCAAAAATCAAAACAAAAAATCT  
AGTAAGGGTCTATGTCTAGCGCTGCACTTCAAATATGTGTTTGTGATGACATCATTAGCCCAATCCAATTTTCTTTCA  
TTAATTTTCTGAAATAAATATTTTTTGGAGTTTATACTATATACCAGGTGCTGCTGTAAGTGCTAGGAATATAACAGTGA  
ATCAAAACAAATAAAATCTGTGACCTTTTGGAGCTTACATTTCAATGAATATAGGCAAAATAATAGCCCTGCAAAGAG  
CTCCACTGCTTAATCCCTGGACTAAATGAACATTACCTCACATGCAAAAAAAGATTTTGCAGATTTGATTAGGGGCACA  
GACCTTGAGATGTAGTGTCCGTTATTAGCCAGTGGGCCAATCTAATCACACAAGTCTTCTAAGCAAGACTTTTCCC  
TGGTTAGGTTAGAGAGAGATGTGATAACAGAAAAAGGGTCAGACAGATGCAACTTTGTTGGCTTTGGAAATGAAAGAAG  
GGGGCCTGGAGCCAAGGAATGTGGACAGCTAGAAAGGGCAAGGAAGCAGATTCTCCCTTAGCCCACTCAGAAAGGAATG  
CAACCCTGAAGACACCTTGATTTTAGCCCATTTAGGCGCTGTGTTGGACTTCTGACCTACAGAACTATAAAATGATACAT  
TTAATTGTTAAATCACTAAGTTTCTGATAATTTGTTACACCAGCAGCAGAAAACCTACAGAAAAGATAGACAATATTCA  
AGAAAAATAAGTAAAAATATATGTTGGATAGTGATAAGTGCTAAGGAAAAAAGTCAGGGAATGACATAGGAAGTTATC  
AGTAGGGATGCAATTTTGAATAGGGTAGCCCTCAGGTTAAGTTTGCATAGACTCAAAGGAGATGAAGGGCAAGAACA  
TTTCAGATGAAGGAAACAGGAGGCTAAAAGCTGAGACTAGGACAAATGATCAGCCTGACTGATTTCTGAATATCACCAT  
AAAAGAGCAGTTTCTACTTCAGAAATATATGTACAAGCTTCACCTGGGAACCATGTGTGATGATTTAGGATGAAGTTTCA  
AACTCCACAGATGACATTCTTATTTTTCTATAAGCAAACAGTCTGCCCCAAATAACATCATTTTACTTTTTTCATGTTT  
CTGGAGAGTTCAATTAAGAAATCAATACACCGTATTCAAAGAAAGTGAATTCTTACAATCACTTAGAATTTGGTCTAAG  
GCAAAACAAATTGAGGATGTTTACAGACTGAGTCTTTTTTGGACCATCTACTCAACATCATTTATCAACCAACAGCTTATACCC

Fig. 6.232

TTCAAGAGGGATCTCAAATTATATATTTTGATCCTGAGTTGTTGCTATAATAAATTTAGAGCTGGAGAAAAATAGTCATTGTGTA  
ATTATTTTGTATTAGAGACCGGCTTACATATGCTAAAATAAATAAAACAAAATGAGAGTTAATTCTATGTGAAATTCA  
CCATCAATTTTGTATGAAATTTCTATTGATACTTCCAAGTACAGTAGGCCCTTTCGTATCCATGGGTTCCACATCTGTGT  
ATTCAATCCAATTTTTTTTTTTAATAATATGGTTGTGTATATACTGAACATGTACAGACTTTTCTTGTCAATCCCTAAA  
CAGTACAGCATAATAACTATTGACATAACATTTACATTGTATTAGGTATAAGTAATCTGGAGATGCTTTAAAGTATATT  
GATGTGTGTAGGTTATATACAAATACTATGTCAATTTATATAAGGAACCTTGAGCATCCATGGATTTTGGTATCTGCCCTG  
AAGACCTGGAACCAATCCCCAAGATCTGAGGGACCACTGTAATCTAATTTGAGGCCAAGTTTCATGGGTTTGTATCCCT  
CTTAAGTACCTGGGGGAAAAAAGCTGTCTGATTTTTTTTAAAGTTTTAGTATACCATATATTTTAAATTTTCAAAGAAAGG  
AAAAAGAAAAATTTTATGATCTGTGTCAATAGAAAGTGTAAATATATAAAGCAAAGAAATGCCTAGGTGAATATTGGCCCTA  
GTAATAAACATTCTGCAATGGTGCCTCATGGGAAATACGCCCTTACCTTGCTACTCAAATGTGATCCATGAACCAGCAG  
TATGAATATCACCTGGACTTGGTAGAAATTCTTGGACCCACCCCTGACCTAGTGGGTAACCATCTGCATTGCAGTAAGAG  
TCCCAGGTGATTCATATGTGTTTTCAATGTGAGAAGCACAGCACTGGGGCCCTTACCCGGGGCCCTCCTTAGGAAACACA  
CCAAGTATTGCATGTTTTTACATCCTGACAGGTCCATATGAACCTCACATTTTTCCGAATACAGTGCACATAGCATATCT  
ATCATATTTTGAAAAGCTATTTTCATCAAGGGAGCTTAGTATCTGGTGCTCAGAGATACCTACAGAGAATAGACAGT  
GTTATGCTTTTTGAGAATTTATCAAACTTTTGGTGCATATAATGTTTTTATTTCAAACCTTAAATTTGGTCAACATATTT  
TTAAATATTTAATAGTTTGGAGGTGAAGAGGATAGAAGTTTAAATTAGTTCAAAGGAAGGTAAATTGGGAAGGAAACAAA  
CTTTTTTGTGAATCAGAATTTTCAGGATGAAAAAAGACACCAGTGCCCTGTGGTTCAAGTCTAACACAGCTATGATGT  
GACTCTTCAAAGGTCAATGCTTGTGCCCTATTGCTGCACATCCTTCTCCTTGTGAGTGTGATGTGTCATTGGCTGGC  
TCTGTGTCATTGGCTTGGTCTTGTCTTCACTGAACCTTGGCCCTCCGTGAAACTTCTAAGTAGCATTTGCTCCTACCTGTG  
AATCTTGGAAACACACAGGGCAAGTGAAATTCATTTTCTTCTTTCTTTCTTTTTTAAATGATTAATAGACAATTTAT  
TTAAGCAAGATCCTTATAGTCATCRTTGGCAGACTTAATATGAGATGTTAAATGTTCCATCCAATTTTCTTCTGGAT  
AAGTTTTTCTTCTTCTTATCCTCTGTCAGTTTGAACACATAATACAGAAAGAGGGGCCAATCCACACAGAGCTCCC  
AAGAGTGAGTTTGGAGGTGAGTCTGAAATTAGAATAGACATTTGCTGATCTTGGCATAGGTCCAACGAATTAAGGCAAG  
AATCTCGATAGGCCCTTGGTGGTTAGAGTTGGTTGTGTACTGAAGCAGGTACTCTTGTTCAGCTGGGCTCTTATGGC  
CAACCGTTCAGCTTGCATCTGCCAGCCTTCCAGAGATATGTCAATTTGGCTGAGTCAAGGGTCAAGGGCAGAGTGGCC  
AGGTGCGATGGAGTAAACTTTGGGAATGACATTTTGGTGACCCAGCACACAACCTGCCTGAAATTCATTTTTCATGTGAC  
ACTTTTGTATCTGTAACCATCAGGTCTGTTCCCTATGTTTTCTATTCTTAACTTGGCTACCATTATACCATCACATCT  
CTTTCCTTTTCTAGTGACTCCCCATTAGACTAGCTCCTATCTCATAACCTCCTTTTGTAAATTAATGGGCCAAAGATTA  
GCAAAATCCAGAAATCCTAAAGTAATCCAATTAGCTCAGAACATCATAGAGACTTTTTTTTTTCTTTCCTGCTCATCTG  
GGGTATTTATCAATGAAAGTGACTTTAGATTAGATAGACACTGGCTGCCACATCGTATCQTTGTGTGACATCCTGCACTT  
AACTAAAAGGGCTTGACTTAGGCACCATCTCCTTCTCTCTTGGCAGCTGCTCAGTTAGATGTTTTTGTTTTAACCAAAG  
GGCAGGACTTCAAATGTGACCCATTTAACTCCATCTGGTTATATTTTGACCTTATGCTCTTTTTATATCCTGATTCTG  
TCATCCATTCTCTTAGCTGTCTTCCAGCTTGATGTAATAGTATTTTCCCAAACCTACACCCCTTTCCATAATAAAGAT  
TGTCACTCCTCCTCAAGCTTCTTAAAGCAAGCTTTATCATATGTCTGATAGGATCTCTGTTTCTGATTGTACTCAGTA  
TAGATTTGTTTTCTTGGCACACATGTATGCACTATGTCACTTAATCACAGTGCCCTATTAGATTACAAACTCCTGTCAC  
CAAGGGTTTTGTTCCCTCTTTTCAAAGCAGAACTTAAAAGAATTTTGCTTACCTTTAAGCGTGCAGTTTCACATATTGA  
CTTTAACTGGATGGTGGTTGATGGTCACTTGAAGTCACTTTATGTCATAGGATTAAAGTACATCAAACCTTCATCCTT  
AAGGATACTTAAAGACTTTTAAAGGAATAAAAAACTAATTTTTCTTAGCACAAATGGTTTCAAGTAAAGGGTGCATCA  
GAGAAGGCTGTCAATTGGTTTTATTTGTTATATTCTAGCTCATGGTGATTGTATGTTAGCCAAATATCTTGCATTGTGATT  
TTAAAACAAATCAGAAGTAGATGACTCAGAAATGTTGACAATAAAATTATGGACAAGCCCCCTTGCTACAGCAGCTCTTA  
TTAATTAAATATCTGAGACAGCAGAAATTAAGAGAGAAGAAAGTGATATACAATTTGGAAGGTTTGGAAAGCTGGCCATA  
AAATTATTTCTTTCAGCTGGAGATACCTTACCTACTTATAATATAAAAAATTTTGAAGAAATAAGAAATAGGTCCTATT  
TTACTTTGTCAGTGAAGGCTTGAATATTTGAAAGTTCACTTTTATGTCATAGGATTAAAGTACATCAAACCTTCATCCTT  
CTTATCTCTCTCAAAATATTAGGAGTATAACTTTGACACTTCTTGGCTGCTGTAATATACTGTTCTTATAGTGATA  
TTTTAAATGAATACTTTTGTGAACATAGTACTAGAAAAAGGATAGTGTTTTGAATATTTTAAATAGCCTTACAGGGTTAA  
AAAAGGATCTTATAAAAAAGTATGTTTAGTACCATTCAATTTTTACAAATTTTATGCATTGTGCTTATTATATATGTAAT  
TTAAAAATTTACATATAAGCTTATACTCAGAAAAAGATAAATGTTGTAAACACACTTGCATGCACACACACCATAACA  
ACCACCATGCCATTCAAGTGGTTATTTTCAAGGTAAGTAGGATTGCAGAACTTTTACATATTCACGTTTTTGCCTATATTT  
TCTGTTATAAGCTTTTATTTTGGCATGAGAAGAAAAAATTTTAAATTTCCCAAAAACATCTTTGTAATAGTACAAA  
ATTAAAAATGAACAGTGTCTATCAATAGGAGAATGGCTACACCAACAAAAAAGTCAAGTAAAGAAATAAAATGGCCAGG  
CCTGGTGGCTCATGCTGCTAATCCAGCACTTTGGGAGGCCAAGGCTGGTGGATTGCTTGAGCCAGGAGTTTGAGACC  
AGCCTGGGCAATATGGCAAAACACCATATGTACAAAAAATACAAAAAATAGCCAAGCATGGTGGCATGCACATGTAG  
TCCTAGCTACTAGGGTGGCTGAGGTGGGAGGATTGCTTGAGCCTGAGAGGCAGAGGTTGCTGTGAGCCGAGATCACGCC  
ACTGCATTCTAGCCAGGGAGATAGAACAAGACCCTGTCTCAAAAAAATAAAATTAAGCAATGGGAAAAGATTCTCTTG  
CTATTTTAAATGTTGATCAACATTCAATTTTTCAAGTGGTTTTAGGTAACAAGACATGTCAACCTCCTGAAACAGTAATT  
GTTGTAGATAATAAGAAATATATATGAGTTTGGCTTTACCTGATTTTTTAAAGTGGAGAGAAAAGCTGAATTGAAGCAAGC  
ATACAATTATTTTCTAAACATATCTCTCCAGTTTTCAGTGTTTTTTAAATCAAACCCAGGAATGGTGAGCAGACAAAT  
GCCAGTCCATGTCTCCCCCTTCATGGTCCCTTAGTTGTCAATTAAGGGTGACTGCAGAGAACCATAGGCATTTGAGGAC  
TTACAGAGAGATATGTTTTATATTGAGAGTGGACATAAGCTCCTCATTGCCCTATTGTTGGTTTGCACCTTCAAACCTGCAGC  
GTGTACTTTTTCTAAGCTCTGTGGTCTGCCCTCCTAGGACTGCTTGCCCTGTACTGTTATTTCAGAATGTTTATCTAGT

Fig. 6.233

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GAGGAGTGCTGCATTGCTCCATTGTGCATCACAGGGCACAGGAAGCAATGGTATGACATTTTTGCTGCACATCTATTTT  
TGATTATTCTCAAAAGATGAAAATGTTTATCACTGCAGGGGTGTATTAGTCCATTTTCATGCTGCTATAAAGAACTACT  
TGAGATATGGTAATTTATAAAGGAAACAGGTTTCATTGACTCACAGTTCCTGCATGACTGGAAAGGCTTCAGGAACTTA  
AAATCATGGTGGAAATGGGAAACAAACAGTTCCTTATTACATGGCGGCAGGGGAGGGAAGTGCAGAGGAAAGGGGAAA  
AAGCCCCCTATAGAACTATCAGATCTCCTGAGAAGTCACTCACTATCATGAGAACAGCAGGGGGATCTGCTCCCATGAT  
CTAATCACCTCCCATGAGGTTCCCTCCCCAAACATGGGGATTACAATTTGGATTACAATTCGAGATTTGGGTGAGGA  
CACAGAGCCAGACCATATCATTCCACCTTTTGCCCTCCAAATCTCATCTTTCTCAGATTTCAAAACACAATTTATGCCCT  
TCCCAAGAGTCTCCCAAGTCTTGACTCATTTCAGCGTTAACTCAATAGTCCAAGTCCAAAGTCTCGACTGAGACAAGG  
CAAGTCCCTTCTGTCTATGAGCCTGTAAAGCAAAGCAAGTTAATTACTTCTTAGATACAGTGGAGGCACAGGTATTG  
GGTAAATACACTCAATCCAAATGGGAGAAATGTGCCAGAACAAAGGGGCAACAGGCCCATGCAAGTCCAAATCCAAT  
AGGGCAGTCATTAAACATTAAAGTTCCAAATGATCTCCTTTGACTCCATGTCTTACATCCAGTTTCATGCTGTTGCAAG  
AGTTGGGTCCCCACCCTTTGGCAGCTCCACCCTGTGGTTTTTCAGGGTACAGTCCCCTCTGGCTGCTTTTCATGGGC  
TGGCATTCCTTCTCAGCTCCACTATGCAGTGGCCCCAGTGGGAATCTGTGTGGGAGCTTCAGCCCCACAATTTCTCTA  
GTTGCCCTCTTCTCAGCTCCACTATGCAGTGGCCCCAGTGGGAATCTGTGTGGGAGCTTCAGCCCCACAATTTCTCTA  
CTGCACTGCCCCAGCAGAGGTTCTCCAGAGGGGCCCGTCCCTGCAGCAGGCTCTTGCTGGACATCCAGGCATTTCCA  
TACATCCTCTGAAATCTAGGTGGAGGTTCCCAACCTCAGTTCTTGACTTCTGTGCACCTGCAGGCCAACACCACGTG  
TAAGCTGCTAAGCCTTGAGGCTTGACCTTCTGAAGCAATGGCCTGAGCTGTATGTTGGCCCCCTTTAGCCATGTTGG  
GACTGAAGCAGCTGGGATGCAGGGTTGCACAGAGCAGGGGACCCCTAGGCCACCCCAAAATAAAGTCTTTCTCCT  
AGGCCTCCAGGCCTGTAATAGGAGGGGCTGCTGTGAAGTCGTCTAACAGGCTCTAGAGACATTTTCTCATTGTCTTGG  
GATTAAAGATTTGGCATCTCATTACTTATGCAAAATTTCTGCAGCTGGCTGGAATTTTCCCCAGAAATGGGTTTTCT  
TTGCTATTACATCATCAGGCTGCAAAATTTCTCAAACTTTTATGGTGTGCTTCTCTTTTGGTCTTCCACAGATACT  
CTAAATCATCTCTCTAATTCACAGTTCACAGATCTCTACGGCAGGGACAAAATGCCACCAGCTCTTTGCTAAAGCAT  
AGCAAGAGTGACCTTTACTCCAGTTTCTAACAAGTTCCTCATCTCCATCTCAGACCACTCAGCCTGGACGTCATTGTT  
CGTATCACTATAAGCATTTTGGTCAAAGCCATTCAACAAGTTTCTCAGACGTCCCAACTTTCCACATCTTTCTGTCT  
TCTGAGCCCTCCAAGTCTCTAGGAAGTTGCACATTTTCCACATTTTCTGTCTTCTTCTGAGGCCTCCAACTGTTC  
AACCTCTGCCTGTTACCCAGTTCCAAAGTCGCTTCCACATTTTCAGGTATCTGCAGTAGTGCCACACTACTCTCAGTAC  
AAGTCACTGTACTAATCTGTTCTCAGCTGCTATAAAGAACTGCCCTGAGACTGGGTAATTTGTAAGGAAACGGGTTT  
AATTGACTTACAGTTTCCACATGACTGGGGAGGCTTCAAGAACTTACAAACATGGTGGGAGGGGAAGCAACATGTTCT  
TCTTCACATGGCAGCAGGAGAGAGAAGTGCAGAGTGGAGGGGAAAAAGCCCCCTTATAAAACCATTAGAGCTCCAGAGAA  
GTCACCTACTATTATTAGAACAGCATGGGGGAATCTGTTCCATGATCTAATCACCTCCCATGAGGACTTTCCCCCAAAA  
CGTGGGGATTACAATTTGCATTACAAATCAAGTTGAGATTTGGTTGAGGACACAGAACCAGACCATATCAAAGAGTTG  
CTTTGACAAAAGGAAGTGTATCTTTTATTACTTATTATCAAAGCAGCTTATTAAAGTTATTAAATAGTTTCAAAGG  
GGCAGCTTTTTTTCTACTTTCTGTATTAGTAAGCAACCATCTATGATTGTAATACAACCTGAGGTCTCCCAAGAGAGAA  
TGATGACACAAAACAGGTGTGCTATCTAAACCTGTAAGAAATGTTGTGCAGTGAACCACTCCAGCACAGATATGGAGC  
TCTCTCAGAAACAAATAGGAAATTTAGATATGTGAAATCAAATAGAAATAGAAACCTCAATTTAGAGTTAGTTTGTG  
GTAATATCTTAGAAATGTTTTCATGGTTCAAAGCTGATATTTGACAAATGTGTTAGATCTATAAAAAATTCACAAAACAT  
CCCTATAATTTTCAAGATACAAATGCTAATAAGGATTTTAAAGTTCAATGTGGACCACAGGGCTTCTGCTTTTGCAGGT  
GTACCTTCATTTACATCCTTTTCAGTTGAGGAAGGGTGGGTGTTTGAAGCAAAATGTATGATAAGGTAAGAAGAAAAG  
AGAAATGAGAGAGAGAAGCAGAGATAGTGAGCCATCAATAATGATATTAGTTGGCATTCATTTCAAAGCCAACACC  
CCAATTTAGAGGATTTGCATTTAGGACTAATTAAATATAAGCTAATTGAGCAGGGACTGAGTTAAGCCTACTGATAGT  
GCTTCAATAAATTTATATTAACAATAACAAGATGTTCTTTTCAAGGCTAAAACTTTTCTAAATGGTGTATACA  
ACTTGTGAGTCTTGGTAAGTCAATGTTGTTGCTTCTGAAATTTTCTATCCCTTTTAAAGGATAATTTCAAGTCAAGT  
AACCAGAAATTTTCCCTGTAGCAGTAGAGGTCTCTGAAAATGAGGAAGCTCTCCATGTGTAATGCTCTGAAAATGGCA  
GACATTTTCAGAGTCACATTCTGTATATCATTATGTGAATGGCATAGGCAATTTTACTCCTCAAGATTCTTTGCCAG  
AATTGCAATTTAATAAGAACAGTATTATGAATGTTGAAGATCTTCCAGCTCTCTTGGAAATAAAGGGTCTTCTCA  
AATTGTAGCTTTGGTACATTAATAGTTACTCTGGGGCCTAAATGAGTTAGTTAATGTGCAGCTTAAACATCTGAGGCA  
CACCCAGAAGTAACTCAGGACTGAGGAATTCACCTTCCCTTGCTACTCAATTGCCGTTTGTGTAAATAGTGGACAGTG  
ACACTGTTTGTGTGCAGCTAGCAACTGTCTCTAAGTCTTGGGTTTGTGTGGAGCATAAAGTGCACCTCCAGTGCCTGAGT  
ATACCTGTAAAGGATTTTACCATGATTCAATAAGACTGTTTTTAAATTCCTCTCCAAATAAACACCTCTTTAAATTTAA  
TTTTCTCATATTTCTATGTGGTTATTTATAGTTCAAGAACAAGTATTTAAATATTTAAATGATAGCCATTCAATTTAA  
CTATTTCAAATTTTATGTTTTTTTCAACAAGGAGCTGAGCTGATTATCAAATATGCTTTATGTGAACCTCTGTTTTGTTA  
AAGTGTACTGTATTTTTTAAATTTGTGAACATGGGAAATTATACAATGTTCTATAAATTTCAAACCTGAGTTTTTTTT  
TAAATCTCAATGAAAGCTGTACCTTATCTGAAATGTAAATTAGTGTAAAAACCTTTTCATTCTCAATAATTGTGCGCTA  
CTATCTTTTATCTTTCATGTTTCATCAATAGTAACATTCAACCTTCAACGGTTAAACAAATATTAAGTGTTTACCATGTA  
CCAGACACTTTTCTACATTCTGGGGTGACAGATCTAGAATTACAAGTGTATCAAATATTATAACAGACAGGTGGAAGGT  
GCTACAGGATCAAATAAGAAGAGACATAAACTTAAGTGTAGAGATGGGTGGGGAGGAGGAAGAGTTAGTGTGTAGA  
ACAGGCAACTTTTAAAGAATTAAACAGGAAGTTATGCAATTTGGGGTAAAGTGGGGAAAGAGTGTACGGGAAATGAGGT  
TGAAACAGATAATAAAGATTTGCTATTTATTTCAAAAATAGTTTGAAGGCCAGTAATTGGCTGGGAGAAGAATGGTGCA  
CAGATGGGCAAGTGTGACCTGCAAGGCCAATTAGAAAGCTGTGTCTATAAGTAAAGGCAAGAGATGAGGATGACCTGG  
ATTAGGAACAAAAAATCCTCTCTTTTACCTGCAAAAATAGCTGTTGACTTTGTCTCCCTTCCATACAAGACTTGGG

Fig. 6.234



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TCTCCACGTTTCCAGCAAGAGACTGGGCAGTTATACATCTGTTTTTACTCTGACCTGACTGCTTTATGCAAGA  
TGGGCCAAGTCTCCCTTATACATCAGGAATGCACTGATGTAAAGACAAGATATCTGCTCCTCCAGCCACCTTTCTTCCA  
GGTCTATCTGCCTTAATTCCTCTTCCCCATTCTCAGTGGTGCATCATTCTCTACTGCTGTCTAGTCTGCTCAGTT  
TTCCATTAGTTTTATTTGTCAGCAGAGATTTTTTTTTTTTAGTGATCTCTATTGTTCTTAATCACCCCTTGAAATA  
TACCTAATTAACCAAGTAAACCTTCATGATGCATGCTCTTCATCCTAGGAGTATAAATGATCCTTGTATATCTATAG  
GAACGTTTCTATTTCCAGTCTTTGAAATTGAGGAATTCATATACATTATATATATACACACATACAGACACACAC  
ACAACGTGTATATGTGTATATATGTATATGTATGT  
ATGAACAGCTCTTTTTTATCTCTTAAAGCAGCAAAATAAATATTGACATTATTTCAGTGAATTGATAGTTGAAATGTA  
AGGATTTTCAAGATGAAAGTTATGTAGTAAATCCTAGCCCTTTCCGAATCCTGATTTCTTAAATCTAACCTATATGGAAT  
TTCTTTTTTTTTTAATAAGGTTCCATGAACTTGGCCTCTTTCTATCATCTTAAATCGTTCTCTCTTATACTTCTC  
TAGTTCTACTTCTTTCAGTGAAATCCATTCTAATGTGAACCTCGGTTTCTCTGAGAGGTGCCTCACCACAATGCCCA  
TGCCTTTCTGCACCTCCACAGTAGATCTTCTGCCCCAAATACCTACTGTGAGCCTTCTTCTCTGTGCCTTTCATTA  
TTCCACTCATCTGAAATTCAGTCGCACCAACTTTTTAAGCACCTTTATCAGGCACGTGGTTCAGTAAGGTTTACAGATG  
AATAAGGCATGATTGCCAGTCACTGACAACAAATTTGGGCGAGGAGAACAGCCCATCAAATAAATGGTCTCATATG  
TCTTTTGTGTTTGTGTTTGTGTTTGTATAGAAATCTACTCTGTTGCCCCAGGCTGGAGTGCAGTGGTGTGATCTTGGCTCAC  
CATAACCTCTGCCCTCCAGGTTCAAGCAATTCTCTGCCCTTAGCCTTCGAAGTAGCTGGGACTACAGGTGCTGGCCACC  
ACACCCAGCTAATTTTTTGTATTATGAGTAGAGATGAGGTTTACCATGTGGCCAGGCTGGTCTCAAACCTCTGACCT  
CAAGTGATCCCCCAGCTCAGCCTCCAAAAAGCTGGGATTACAGGTGTGAGGTACCGTGTCTGCCCCATAAAGCAGCT  
CATTTATAAACCATAAATACATAAGTGTGAGATAGAGATTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT  
CTTTGCCCAACAAATCCAATATTGTTTACTACTTCTGTGCTTCCCACATGACTGTTCTCTCATCTTCTCTTAAATTA  
ATGGAAATACCTCTAACCAGTTTTCCGACTGGTGCTTTTGCCCATCCAGTCTAATCTCATAGCAGAGTTATTCTACA  
AAAACAGTAATTAAGTTTACATCGTGTGTGCTCTCTGCTCAAAGCCATCCAATGGCATGCCATCTAGAGTCAAAT  
TCTTGCTATGTCTGTTAACTTCTACATGATCTATGTCTACCGCCCCCTTCAAGTGACCTGGATCTGACATCTTCTCAA  
ACCACTGTCCGCCTCACCACCTCACTTCTCCACTCTGACTTCACTGGTGTTCCTGAATGTGCCAAGCATGTTCTGCAT  
CACAGCCTTTGCACTACCTGTTCCAGTGCTGGGAATCTCTTCTCTAAGTATCTGGATGGCTGGTTCCATCCTGCC  
TTCAGATCATCGCTCATATGTTACTTTAGCAGTAATCCTTTCTTATTCATGCTTTTTCTTCCACCTTGACGTTCCCTGC  
TGTATTTTATTATCATAGCACCTATGACCTACTGTATCCTTTGTTATCTGTTTATTGACTGCTTTTATCCAACAAGATG  
TAAGCTCTATAAGGGCAAGGGCTTTTTCTGTTTTTCACTGTTGTATCCTCTGTGCCTAGAATGGTACCTGTGCACATA  
ATAGGTGCTCAATGAATATTTGCTAAAGGATGGAAGGAAGAAGGAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAA  
AGTTGAAGAAGAAAGGAAGGGAAGAAAGATGGTAGGGAAGAAGGAAGGACAGCAGAAAGTCTCATGTTGGCTTTACTA  
AGTCTCTAACACTTATTAACACCTGCTTTGTCTTATAACAGAGATAACACCGGCCTGTAGCCTAGTGCCTTTTGAAGG  
CAACATTATCTGGATAGAACTAATAAGGTTGTTCTGTTTATGCTGCATTTATGGCAAGAGTTACTGACTTTCCATTTA  
TAGTTGTGATATAAAGTTTCTTCTTTAAATGAAGACATTTTATTTTCACTTTTTTAAAAAAGTCTATTACAGAATTTT  
TAAATTAATAATAGTATATAGGGGATGCAGAAACAACAAAATCATGATGTAGAAATGTGGATATGGCAGAATCATGA  
AGCTGGTAGTGAATGCTGAATTGGGGATAAGTGACCCCTTCAGCCATGAAACATTCCCTGACTATTGCCATCTTCCC  
CTCTTTTCACTCTGTGTTTATTTCGACTCCTGTGACATATCATGGGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA  
GTTTTGGGTGTTTTAGTTCTATCTTCTTAAATTTGATATAAGATCCTTGATGTGAGTGCTCATGTCTGCCCTCTCTC  
CTGGGCAGCCACCATAGTGCACAGCCAGCACTGACAAAACAGAACATTAAGGATGTTTGTGTTGTATTATCATATGA  
CTCAGCTACACAATAAGACATGAGGTAAATAGTGTGCAGACAGTAAAAATACTCGAGCGTGCTTTATTTTTTTTTTTA  
GCAAAAGAAATACAATAGCAACATCATTTTTGCCTTGCAAACTGGCAAAATGAAATCACTATTTTTTGGCCACTGGTGTA  
ATTTTATAC  
TAAATTAATCACTAGGACAAAACCATGAGTTAATAGGAGCCAAATTCAGCACATCCAATTTGGAATGCTTGAGAATTA  
ACCTGCTAAAAATACCTGACTGGAATAGGAAGACATTTATATAAACAGATTAGGCACATTTTAGTGGAAGTCAGCAACA  
AATAATTAATTGATTTAACTAATAAATTTAGATATTTAAATTTGTCAAGGAATCTTTGTTCTTCTGTTTTATAAATGGT  
ATTAGCATTATCTTTTTTACTGGAACTTTAAAGGTGTAAAATACTGTCAAGAGCAAAAGCAACTTAGATTGCCTGTAA  
TGACCATTACATTGACACCATTTTTTGCAGTATGATTTGCTATTAAATGTGAATAACGTGAAGAACAATAACACTCCTA  
GATCACCTGCTATGAACCAGGCACTGCTCTAAATAGCTCAGGTATTTTAACTCATGTAACCTGCTACAACCCCTATGAAT  
ATATCCTCCTTTCAGCTTCATTTTACTAGTGAGGAAACCAAGCTCAATGAGGCTCTGTTAAGTTACCCAGGTCACAC  
AGCTAGTAAGTGTCTGAGCTGGGTGTTAGTGACAGTGTATGACACCCCAAGTCCATATACTTAAACACTACCTTTGAA  
TGCTGCTCTGTACCCTATATAAGGAAGCTGTGGCCCAAATAGGCAAACTGTGACAAACGAATCCTAGAGTCTAAAACA  
AAGGTTGAAGGTGACTGTAAAGTAGGCATTTGATCTTTAAAAACCAGGTGAATTTGACCTGCCATCTTGTACGGCAT  
TAGTAAACATTACATTTCTTATAATTTACATTAATAATCTAATACTTCTGTTTACAAAAAAGACTTTCAAAGAATATGC  
ATGCATTTTATGCAAGGTTAAAGAGTTTTCAGTGCTGGCTAGTGAAATGGGGGTTAGATGCCCTGTCTATACTACATG  
TTTAATCAATGTAATCTTAAATGAGATGACCTTGTAGCCAAGCATTTTTTCTTTCTTTTATAAGCAATATTAACCTATA  
TTAAATCAAGAAAGCTAATAGTTTTTCGTATTTCTCAATAACCATTAAGTTCAAACATTGGAAGAGTTTAAATATTTTAC  
ATGAAAAATCCACAGGCAATAATTTAAGTGACTTAGAAAAATTTACCGTATTTTAACTTTAAATGACTGTGTATGTG  
TGTTGTGTGCTTATGTGTGTGCTTATGTATGTATGTATGTATGTATGTATGTATGTATGTATGTATGTATGTATGTAT  
GAATATGTGATCATATGTAGTTTATAAAGCTCTCGTGTTTTTTGAAGACAAATTTTTTGTCAATCTAGTGGAACAT  
GATACTAATTTTTTAATTAATTTTAAATTTCCCTGATAATACATTTAAGCCTTAAAAATATTGTTAGTGATTATGTTTC  
TTTTTCTATAAAAAATTATTTCTAAGCCTTCTCAATTTCTTCCAGACTCTTTTTTCTGATTGATTTTAAAGAATTTTA

Fig. 6.235

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AAAAATATTCTGCAATTTCTCTTGATCACAACAAGTGTGGAAATATCTCTCCGAAGAAAAGAAATGATTCTTAAAAAA  
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GAGGAAAACAGAAAGCTGTAGACTGTTATCTTCGTCCATACATATGTTAGTGCTGGAACCTCACTCCAAAAACTTTGTT  
CCTTTGAAAATCATATCCCTCCAGAATTGGTGGAGTGGTGATGGTGTGGTGTGAAGGCCTATTGCCAGGACTGAGAAG  
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CGATTCTAAAGGGAATCTTGCAAATGCTCTGGCAAGTCTATGTATGGGAACATCATTGGCCTAGAAGATGCTCCCTTT  
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AAAATGTCATTGTTTTCTATTCTATCATATAGTTCATGAATCACAGTTAAAAATAATGTTTCCCTTCTAAAAATTTTTCAA  
GTTTTTTATTTTACCCTGAAAGTTCTTTTACATATGGAATTGAATTCTGTGTGCAGTGTGAGAAGAAATCCACTTTTGTA  
TGTTTCCCATATGGCTAACTAGTTATTCCACACCATCGATTGACTGATCCATCATTTTTCCACTGACTGGTAGTGTTA  
CCTTTGACACGCATCAGTACAGTTGGTCTGCTTTACCTTTCTAGCTATAATTGTGGCGTATCCCTCTATTAATTGCCCTC  
CTTTAGTGTTATTACAGTGCATTTTATACATTTTGTGTACGAAGATCTTATACATTTTTTATTCACATCCACTGTAGACTT  
CTGTGTCTATTACAAAATGGCAACAATTTTCAAGTTATTTTCCAAATGCTTGTGTGCAGCTATATCCAAATCTAATAAT  
TTTTATATCGAAACAAATATTTAGAACTTTTCAAGCTTTGATGCTTTTAAATGATGTTTCTCTGATTCTTTTAGGTA  
TTCTTTGTAGACAATCGTATCATCTGTGAATAACAAAAATTTGTTTCTCCATTCCAATTTTATATCTATATTTTAT  
ACCACTTTTTTAAAAATGATTTATTGACTGGCTGCACGGATGCTTCTCTGACTTTTAAATATGAATCCCTGAGGGATCCTT  
TAAAAAGGAAGATCTTGGTTCAAGTGGTCAAGCAGTGCAGTGCATTTCTAACAAGCTCCCAGGTGACAGTGAG  
GACACTTGTCCAAAAAAGCAATGCTTTCAAAAGACTGTTAAATAGAAATGGAGAGAACAGCATTCTTTACTTGTGTC  
TACAATTAAGAGCATGCTTCCACATTTCAACATCAAGATTAGATATCTTTGATTAGTTTGGTAACTTCTCTCTATTTC  
CAAATTTGCCATACATTTTATCGTGAATGGTTGTTTAGTTGAATAATTTCTGTGGTTTTTCCCTTTAATCTCTTAA  
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TAAGCTCTTTACATGGAACCTCACTTTTATACTAGTTTTTGGAGACACTCTGTTATAATCAGCATCTTACTGATGAAGA  
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ATAAAATGATTTTGGAGCCACTGAGAAAAGTGGGGCCCTAGTAAATTTGTAACAGCCTCCCACTCCCTATCAAGAGGAG  
GTGGTAGACCGAGATTCTAAATTTGAAAAATGAAGGCCGGGTGCGGTGGCTCACGCCTGTAATCCAGTGCTTTGGGAGG  
CCGAGGCGGGTGATCACAATCAGGAGATCGAGACCATCCTGGCTAACACGGTGAAACCTGTCTCTACTAAAAATA  
CGAAAAATTAGCTGGGCGTGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGTGTGAAC  
CCGGGAGGCGGAGCATGCAGTGAGCCGAGATCGCACCACTGCCTCCAGCCTGAGCGACAGAGCAAGACTCTGTCTCAA  
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GAAATCCTGTGGTCCACAATGAAGCGTGTATTATTTGTTTACCCTCACTGATTTGATTCTTTTACATTGTTTTCATGGTTTT  
TCTTAAATCTTACTTACTCTTTAGCATGTGGAAGTACTGCCTTTCAATGTAAGACATTTTACTTTAACAATTCAAAGA  
GATTTTTTTTTCTATGCTACGTAGATATTAGGTACAGAAAGAAATACAGGAGACATTAGCCTGCTCATGAAGGTTATG  
AACTGCACAAATCATGTAGTCTTTTACAGGTTAATTTGCCTCATTGTGAAAGGAGGTTGAACTAGGCACTCTCTCACC  
TCTCTGTAGCTCTGATGTTAAAGGATTTTGTTCATCTTACAATGTTTTCTCATTAAAGCTCAAATATGCATAATTA  
TGTAATGCATTATTTTTTAGGAGATTGAAAACCTATCATCTAGATGATGTGCTAACCTGATTTTTGTCAATATCATTCT  
TGATTCTGTTTTTATATCTCAATATGATACAGAGTTGCAAAATATTTCTAAGCTTTGATCATTCTTTTGGGCATATTC  
TGTAAGATAATTTGAAATGATATATTTAGTGGAGAAAATGTAAAAATAATTTAAATCCTTCTAAGAAAAAACAAATGT  
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TGATGATCAGTGATTCTGATTAGACATGCGTGTCTACAAGTTGATTGACTGACCCAGAGAGGAATATAACCTTAAAT  
GGAAACAGAGAAAATATCTTCACTGCTTGGCTTACCTGCTTCTTTTCAAGGGGATAAGTTGCCACAGCAGATTCAAAAGG  
GTGTAGTCTATGAATATTTTTAGAATCTCTAAAGATGAGGATTTTACAACATGGTATTCAACAGCAGAGTTTAAATTTT  
CTTTTTTCTCACTTAACTGAGTCAATTAACAGTTGAGACATTTTACATGACTGTGAGCAGTTGAGCACAAAAACCAGA  
TGTTAAGATTGGGTACAGTCAAAAGTTTAGACATCCACACCTGTGTTATGTTTGTGTTATGTTCTGGAGCGCCAACTT  
TGTTACATCTTTGAACCCACTTCAGACCTCAAATTACCACATTTTTTAAAGCCTCATTAGAATGGTATCATATAGTGC

Fig. 6.236



[illegible]

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TAGTAGAGATGGGGTTTTGCCATTTTGGCCGGGCTGGTCACGAACTCCTCATCTCAAATGATCCACCTGCCTCAGTCTG  
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TGAAACTATTACAAATCATGCTGCTATGAACATTACTGTATACATCTTTTTGTATAATGCATATATATTTCTGATGGGT  
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TTTTAACCATTTCTAGTTGAGTAATATGTAGTGTATTTTCATTGTAATTTTAATTTTCACCTTCAGTATGTCTAGTGATT  
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TACCTGTTGATTATGCATAATTTTCTTTAAATGATGGATTCTTAGCCAATAAGCTATTTTAAAGCAGAAGCATTTTTTT  
TGCCAAAGACTAAGGGTATAAAATAAATTTAAATGCTAAGCTCAGGATATAAGAATTATTAAAAATTAATGCTTGAAACT  
AGTATGTTACATATGGGAAATCTGTATACCTTCATAATTTCACTGTGAATCTCACTCCTCTAAAAAATGAAGTCTTGAA  
AAGTGTATTTTTAAAAATACTTACCTTACTTGTAAATGTGAAGCAATTTATATTAATTTAGCAAAATCAATGTTTCAAAT  
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CTTGCTACATCTAAATTCATGGTGTATGTTTCTTTAGGGCAATGGAGCTGAAATGAATAATGGATACCATGTAGTGTT  
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GAAGTCTTAGAATGAGTTCATTAGAATATAGACATTGAATATGAGGTAGTCTGAGTTGAAATTCATCTCTGACAAC  
CTGGATCTGTTTTTGGTTTTCCAATAGTAAATGGCACTAATAATGATATGCAAAATGTAAGTGTAAATGCTTAGCACAGT  
CTTGGCATTAGTAGATTCTAAGCTGTAGTTTAAACAGCTTATGTGCTATGAATAAGCCATACGTTGACATTTTCCCTC  
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ATACCACATACCTTATATTGATGCACTGCAAGAGGCCAATCTAATGTAGGCATAAAAAGAGTAATCTGGTAATCTGCT  
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GGCAGGTGAATGTTTTCAACTTCTGCTAATAATAACATCAGTTCTGTACTCTCCTCTGGGTCTTTTTTGCTGTATTAA  
GCTGCAGTTCCCTTAGGTTAGCTTCTATGCATAACCTGGGAATGCATATTTTAGCTTTTTACTTCCCTCCCAAGAAAG  
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CACCAAAATATGGTTCAAATGTTAAGACTAATGAGCAGCCCTACACTTCTCTCTCTCACTTTTACACACACACATA  
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ACAAATGCAAAATGAATTTGTGGCTTAATGTGCATATGTATATAACAGATACTTTGTTCAACTATATTATGAAATACTAT  
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CATAGGCCAAGTGTTAATTTCTGGTACACATGACATTTAGCACATGCTATTACATTTATTGATTGCATATTTTTATCTGT  
TATCTTTTTGGTTCATTCTACAAGGATTCTTCAAAGAAATCAAGTAATCCTAGACCCCAATATATAAAAGAAACCAACT  
CATCTTAGACCAATATATAAAAGTAAATGACATTTTGTCTTGTCTTAATAAGTTCACAGTATTTTCAAGAAACATGGG  
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GCCTAACCTTTTTGCTACTCTGAATAATACTGAATTGAAGGGTCTTCCACAGCAAGCCCTCTTTAAATATGCTTTCT  
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TGACAATTTTAAATTTGAGATCAACTCTTCAAAGAAATCAAGTAAAGCAATTTTCAGCAAAAAAAAAAAAAAGCCT  
TCTAATCTCCTACAAACACCTCTATCTATCAAGATATTGTGATTGAGAATTAGAAATAGTGTGGAATCAGATGTTAG  
TTTGTCTTTCTTTTCACTGGAATTTCTCCATGCTTTAATTTTATATCAAGAAAAACAATTTTGCAATATTTCCCTA  
AGGAGAGTTTTACAAAAAAGAGATAAAACAACTACTA  
CCTTAAGGAATAAAGAAATTTATCTGAGTGGAAATAATGGTGTCTTCAATTTTCTAATTTGAATTTAAATAATTTATCTA  
AGTCTTTTTGATCTTGTCCCAAGTGAATAAAATGTCTTTTTTTAAATTTATGTTTCATTAGATATATCTCCATCTTTT  
CAGTATTCACCCCAAGTTTTAATTGGGTAGAAGAAATATGGAAGAAATTCCTATTGCTCAGACACCATGTTTAAAGCTTT

Fig. 6.238

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CTGAATGTGATCTAATACCTCCATTGGTTGGAGGTAATTAACAGAGATCTGTTCTTTTAAACAACATTTTGTAGTGCTT  
TAAATCTGAAAGTCATGTCATAAATGTCAGACCTCTTTCTCTTTGCTTTAATCATCTCAGAAAGACTTATCTGTTAATG  
GAACATCTGCATATAGGTATTTTGTGGACCACAGGTGTTCCACATAAGTTAATCTACCTATTAGTTATATGTTTCATGC  
TATTGAGGACCTTTCAATAATAAACTTTACTGAGTGCTTACTCTCTTCTAAGAGTAATGCACTATGCTAGGAGACAGGA  
GGGATATAAAGGTAAAGAAACCATGGCATGAATCTTTAGGGAGATTATAATTTAGTGGAGAACTAGTGAAAGGAGGC  
AAAGGAATTAATAGAACAAAGACAGTTTCTCTGAGTCTCCAAAGGCACTGTAAAAATTCCTGGGAACTGCAGCAAGA  
GCAAAATGTTAGCTATCATAAACATTCTCATGCATCTTCAGGTTTTATCTTCATCCATAAAATTTACCCATTAAATTTAG  
ACATTTCTACTATCTATTCCACTTGACATTCCAATTAGCAGCTCAGCCTCAGCCTATCAATATGAATGCACATCGCTTCC  
CTGTTCTCTTGCTGTGCCAGTCTTTCCCGAGTGTAGTTAGGTAGTGTCTCCAATCAGTCACCATCACCATACTGTGCTG  
ATTTTATATTCTGAATATTTTTTAAGCTTTTCTCTTTTATCAATTGACTACACTAGTTTATAGTCTTCATCATATTATT  
GTACACAACCTGCTGGGTTTTTCTGTCTGGAAAGTCTATTTTCTCTTCTCTCCCGAGTGCCTCTTTCTCTGCTCT  
GGATGCATTTCTCATTTTCTGCTTCCAAGATGTATTTAATACATTCCTCTGTGCTCTCATATGCTGATACATGTCT  
GTCGCTGTATTGCTGTGTAATATCCAAATTATTTGTGCATGTCTTTGTTTTCTCCAAAGTTGCAAGCTCCTTAAGG  
TCAGGAGCTGTTCTTTAATATATCTACTTACCTGAGCAGTCTGTGAGGTATTAATATTGTTGAGTAAACAAATCTGAACC  
CCAAATGTATTATGTAATCTCCATATCCAGCACAGATAAAGGATATGCTCTTGAATTGTTTTATTGGGAGAAAAACAGC  
TGACAGATTAGGCTACACAACAACATAAAACTAAGAAATGACTACATGATAAATTGTAATGAAATCGGAAGGCAGACT  
GACTGAGGAATATATCTCTAACAAGTATTCAAAGATATAATTTTGTATTGTTAAAAAGAAATACAATGAATGGAGAGAG  
GGTTTGGATTTACATTCAGGACTTCTGAAGACCAAGTATAAGAGATTCAAAAGTGATAATGTGAATCTGATTAGAAAA  
TTCAATTTTGGAAATTTAAATAAGAAAAAAATAGTTGGTCTAGCAGGTGAGGCTATAATATGGAATAATGAGAAAGGGA  
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TGTAATGATCCCACTGCCACGTAGTGACATAGGACCATAGGGAGTTTTTCAACACTTGCTCACCTCCCTCCTCCACC  
CTTTTGAATCCTCAGTTGTTTCAAGTGTTCATATTTGTGTCCGTGTTGCTCCAGTGTTTAGCTCCCACTTATAAGTA  
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AAGGAACATGATTTTCATCTTTTTATGGCTGTATAGTATTTCTGGTATATATGTAGCACATTTTCTTTATCCAGCCAC  
CATTGGTGGGCATATGGGTTGATTCCATGTCTGCTCTGTGAATAGTGTGATTACATATAAGTGCAGGTGTCT  
TTTTGGTAGAATGGTTTTATTTCTTTGGGTATACACTCAGCAGTGAGATTGCAAGGTGTTCTATTATTTA  
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TTTCCAAGAACAACTTCTCATTTTGTATATCCTTTGTATAGTTGTTATGGGTCTCAATTTCAATTTAATCTGTTCTGA  
TTTATGTTATTTCTTTTTTTCTGCTAGCTCTAGGTTTATGTTTGTCTTGTTTTTCTGTTTTTTTTTTTTTTTAGGT  
GCGATTTTAGGTTGTTAATTTTCAAGATGTATCTTCTGATGTAGACATTCAGTGCTAGAACTTTCTCTTAACGCTGCC  
ATTGCTGTACTCTAGAGGTTTTGGTATGTTGTATCTCTATTTTGTGTTTCAAATAACAGTTTGCAGTTCTGCTTAA  
TTTTTGTGTTTATTTTAGAGTCATTCAGAAACAAGTTGATTGTTTCTGTTATTTGTTGTTGTTGTTGTTGTTGTTGTTG  
TGTTGATTTTCTGTTTTTTTTTCCACTGTGGTCTGAGAAGATGCTTGGTATGATTCTGATTTTTTGAATGTATTAAGACT  
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GGAGTATTCTATAGATGTCTATTAGGTTCAATTTGGCCAACTATCAAAATTATTAATAACAAATTTTTTGTAGTTTTT  
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TAAGCAATTATTTTATAAATATGTATCCTCCAATGTTGAACATATATATATTTAGGATAGTTAAGTCTTCTTATTGAAT  
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TGTTAAAACACTATGGCAAGAATAAAACCTTACATATCAATATTAATTTGACTATGCAAAAGTTAATATTTGATATGTG  
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TCTGCTTGCTATGTGCTTTCATGGTAACAAGGATCATCTTTCTTTTGTGTTTTCATGTTTGAACCTCTTAAGTATCTC  
TTGTAGGTCTAGTGTGGTGGTGTGATTCTTTTAGCAATTGCTTATCTGAGAAAGAATTTATTTCTCTTCTTATTATG  
AAGTATAGTTGGTGGGATGAAATTTATGGTTGGCATTTTTTCTTTTAAATAAGCTTAAATAAGTCCCAATCTCT  
TCTGGCTGTATGGTTTTCTGCTGAGAAGCCTGCTGTTAGTCTGATGGGTTTTCCCTTTATAGATGATATGACTGTTTTCT  
CTAGCTGCCGTTAAGTTTTTTTTCTTTTACGTTGACCTTGGATAGTCTGATGATTGTGTGCTTGAAGATGGTCAATTA  
TATAGTATTCTTCCAGGAATTCTCTGGATTCTTGTATGTGCATGTTGACTTCTCTGGCAAGATTGAGGAAATTTCCCT  
GAATTATATCCTCAAATATGTGTTCCAAGTTGCTTAGTTCTTATCTCAGAAATGCCAATGTCACTTTACATAACCC

Fig. 6.239

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CATATTTATTGAAGGTTTTATTAAATTGTTTAAATTTATTTTTCTTTATTTTTGCCTGCCTGGGTTGATTTCAGAAAGC  
TAGTCTTCGAGCCCTGAAATTCATCTCTGCTTGGTATAGTCTGTTGTTAAGGCTTCCAACTGTATTTTGAAATCCC  
ATAGTTAATTTTTCAATCCAGAGTTGTGTTTGGTTCTTTCTTAATATAGCTATGTTGCTTTCAAATCTTGGATCAT  
TTTTCTGGCTTCTTTGTGTTGGATTTCAACTTCTCTTGGATCTCATTGAGTTTCTTTGCCATCTAGATTCTGAATTCT  
ATATCTGTCAATTCAGACATTTCAATCTGGTTAGGGTTCATTGCTTGGGAGCTAGTGAGATTCTCTGGAGGTGGTAAA  
CACTCTGACATTTTGTATTGGCAGAGTTCTTGTGCTGGTTCCTTCTCATCTGAGAGAGCTGATGCTTTTTTTCTTTCTT  
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CCGCTGGGGAGAGCCACTTCGAGTCCGCAACAGTACACTGAAGAGGGATGAGAGAGCTGAGCGATGACCCCTTCTCGA  
CAACCAATCCCTGGCTTTGGTGGCGCCCCCTTCAGTGGCTAGCGCAGTGCTCCTGTTTCTTTGACCCAACCTTTGACC  
CAAGAGGGGCTTTAGCGGCTACATCCCCCTCCCTTAGGGGCGGACTGAACCGAGGGCTAGATTCTTAGGGGAGTGGGT  
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GCCCCCTACCCTCTGTGCTTATAAAAAACCCCAAGACCTAGCGGGTAGAGACACAAGCAGCTGAAAGTGGAGAGGACA  
TCGAGGGGAGCAGCTGGTGGAGAGCACACCAACAGATGCTGCCACCTGGCAGGCCGTCCAGCAGAGGAATGACGCGG  
AGTTTGGTGTGGCAGTCATAGGAGAGCCGGGCTGCTGAGCGGCTGGACTCCAGGGGGAACCACTCTCCCTCTGGCT  
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CTCACGCCAAGGCAAGAACCCGGGATACAGAAAGCCCTCGTCTTGTGATAAGGTGGAGGGTCTAATTGAGCTGGTTAA  
CACAAGCTGCCATAGACGGCAAACTGAAAGAGCCATGGTAGCACATGCCACTGGGGCTTTGGGAGCTGTAAACAT  
CCACCCCTAGATGCTGCGGTGGGATCGACCCCAACCTGCATGCTCCCTAGAGGTACGAGCAGCAGGGCACTGAAG  
AAGCGAGCCACTTCTCCAGTTGCACACCTTGCAAGGGGACAAGGGAACCTTTCTCATTTCTGTAGCAACACACGCAGAC  
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CTGCAGTCTTCTAATGCTTTATGTCTCTTCTCTATCGCATCCAAGCATTTCTCTCTAGACTATCTGCTCAGAAGGTGTC  
CCTTACTATTCTGGCGTTTTCTGTGTTGGGGAGCCACACACTACTGCTTCTGCTCAGCCATCTTGATCCCTTCTATGT  
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AATTTCACTAAGAACTTAGAAACAGGGCCAGGGGTAATAAATGAGAGACACAAGAGAATGGAGTAAGTAGATATGA  
TGGACTTGCAAGAAAAAACCTTGTGTAAGAGCAGCTGAGCTAATGGACTAAGAGAAGCATGCAAGTGGGAGACTA  
CTTCTGATAGTAAACATTTTGAAGAGTGTGCCATCAGGAGAAAGCCGACTTCAGTGTGGTCAAGGAGCTGAGCAAGT  
TATATCCAGAAGTGATCAAGGATATTTGTGAGTTTGCTTACAATATCATAAAGGCAGGACAAGACTCAAGGAAGATTCC  
TAGGGAGGAACTGGTGGGGAAGTCAAGGCCAACTGGGCTGGATAAGGTAGAAAGAGCATATTGATGAAAAATACAGC  
CTTAGTGGGAATTTGAGGGGTAACCTGAAGGGGATTTGAATACAGGAGCTGTGTTTAAACCTGATCCCTTTCTTTT  
TTGCTTTTTTTCTTAGAAATGTATAGAACACATCCATTTATTCCAACACTCCAAGTGAGGAATAAGGTTTGGGCTCAGC  
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AAAGTCTTAATGCAAGTGCCTCAGGTCTATTGCTAGACATTTAGAAATTTCTTGGTTTTTGAAGAGAAAGATTAGGG  
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TTTTGCAAAAGTTTGGGCATATAAAATAAATGAAAGTTATGACTAACAGTTCAACTTTCTCTCTGATGCTCACTTTTGT  
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GGTTGACAGATCTAATTTTCTAGTCAAATTAGGACACTGACTTTCCCTAACAGATGTTCCAGGAGCTGAATTTGTATCT  
AATTTCTAGTCTTGTAGTATTATTTTGGAGCTGCAATCCATCATTATACTAACATGGCAATGCCTAGGAAGTTTAA  
TGGCTATACGACTTCTAGAAAGTGCTTTATTACATATCTGACACATTGCAATTCACAAGTGGAGTACAAACAATTT  
AGCAGCTTAGATGACATTTTCTTCTGCGAGTGGTCTGAACCTACCAGGTAGCAACACCCAAAGCATTACATTCTGTC  
TCCCTGAGTTGCATTGTATTTTGTATATCACAGCATAACTGTCAAAGGAAGTATTTCTCTAATTTTAAATTGGGGTTAC  
TAGGGTCAAAGCCAAGTTTCCAAAGCTCATTTTGTGTTTTATCTTATTATCATGCATTTATAGTAAGCCATTTATTTTT  
GAAGCAATCCTTATTATAACTTGGAAAAAACTATTTCTGTAATGTGGTCAGATGTGATTAGATCACTGTTTTATGCTCA  
GACGTATGTTCCACCTTTTCCATAATGCTGTGACATTTGGGGTTGTATAGCTTCATGAATCGAACTTAAACAGTAAT  
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TCCAGTGTTTAGAACATGCTTTTTTAAATGACATTTCTAACCATTTTGCCTTATTGCAAGGCATTTACGTATATACAT  
TGAGAAGCTGTATCTGATCATGTTTCTGAGAGATGTGTTTATGAACCTGCTTTAGTACAGGATTTTGAATCTTAAACA  
AGGATTTTGGCCACCTGCAAAATAAGAGGTTTTCATTCTTTTTTAGAATAGTCTTTTTTCTGGGTCCCGAGTATATTT  
TGCCAAATGCCTAAATATTGCAATAAAAAAACTCAGAGTTTGGTACCAATCTGACAATTAATTTTTTTAAGCCTTTA  
AAAGTATATAAACAATTTTAGCCAATGGACACCTCTCACTGAATTGACCATATAGATCATATTAGTCCATTTTCACACT  
GCTGATAAAGACACCTTGACACTAGGAAGAAAAAGAGGTTTAAAGGACTCAGTCCACATGGCTGGGAGACCTCACA

Fig. 6.240

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ATCATGGCAAAAGGCAAGGAGGAGCAAGTCGCGTCTTATATGGATGGTGGCAGGCAAAAAGAGAGAGCTTGTGCAGGGG  
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TAGCTCCAGGTGATGAGAAATTCAGTTGAGGGCAGTAAAAAGAAACCAGGTATTCTCACACTAATTTGAGGGTTTAAAT  
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GTGATGCAACATGCCGTAAGCCAGATTCTCTAGAAAACAGACTTGGAGGCAGAGATTAGGCCCCAAGAAATTTGTTTGG  
GGGTGGGGTCTCTTAAGATCAACACCTGTGTGCAAGTAGATTCTCTCTCTTTGGATAAAGGCAATTCAGGAGAGAGAGA  
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TACATATAGTTAAATAGTGACATTGAAAGTATGGTGAATTTTTATATCATCTTTCTGGAGAAATACTGAGGAAAATACT  
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GGCCATATGTGTTCAAGCTGAGGAAAGGTAGGTTCAAGAGAGAAATAATCTTGGCCAATCTCACTCTGCTAGTAAGTAGG  
GCTAAGATTGATCGTCTATACGTGGATCGTGAAGTCAATGTTCTTTCCCTCCACTATGTATACCTCTCTGACTCCC  
TGAAGACTTAATCTGGATAGAGATACATTGCCCTAGAGTTTTCTATAGTGGGAGAAATGAGCCTTTTACTTTCTGTGGTA  
CCACGTCAGTTGCCAATTGATTCTGGCACATAAAAAATGATTATATCTTTACCTGTTTAAATTTTTCTGTACCACATC  
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AGATCTGAGAGAGTGCACAAAGATGACAAATGAGGCATGTAAACATATAAAGAAATACTACATTTCTAAGTGGTTTTAC  
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GAGATAAAGCATTTGATGAAAGCATATGAAAGCATTTGACTGAGCAATTAGTATAAAGAGCTACTTAGTACTTATTT  
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CAAGTGGGCTTCCTTAATATACATATTTTAAACCTTGTAAAGTAAATCTCCAGAGAAATATGGAGGTCTAAAAGACAAA  
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ACCGCGTGATCCGCCCTCCTCAGCCTCCCAAGTGCTGGGATTACAGGCATGAGCCGTACGCCTGGCCAAACAATCCTT  
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AATTTTATTTAAAGAACCAATACAGAGCAAGAGAAAAGAGAAAGTGTCCCTATTAATGGTATTTCAAATGCGTATT  
TAAACGCTTATCTACTCCAACTAATTTCTGTATAGATTAAATAGCTGTATTCCAAATCTTACAAGATGCACATCTCTC  
CTCTATTTCTTTCTCGGCTTGCTTCAGCTGAATAGCTCAAATGTTTGGCACTGGTAAAGCATGAAAATGTGAGATAAA  
AAAGGAAACGAAGCTACAGCCTGAGTGGCCTACAGGCCTTAGAAATGGCAACACTTTAAATTCATTATATTTTACATT

Fig. 6.241

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GCTTCAACAGTTACACATTTTTTTTTTTTTTTTTTTTTTTGGCTCTTGATGATGTGAGAGATTTATCTGGGATGTCTGT  
CTCCACGGGTAAATAGTGACCGGGGTGAAAACCTGAGGGAACTAGGGAGCACCTAGACCCCAAGCCTTAGTAGTCAGCTC  
TGGAAATGCTCCCTGCGAGTGTGGGGTGTGAGTGTGGTGTCTCTGTGTCTCTGTGTACACACTGTGTGTCTGATGTGCAGA  
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TCATGGAAGAGGAATGAGAAGGAAATAAGCATTGTGTACATGCGGGATCTCACTGGATGCTTTCAGTGCTAGAAGGG  
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ATAGCCAGGGACTAAGCTTTCATGATGTGCTTTTGTGTTTTAGCCTCCTTTCCGGCATGTTTTTGTGTTGCTCTCCTT  
CCTGATTACTTTTTATAGTGCTATCTTAGTTTATGTATTTTTATAAACTGCCTTAAATGCTTTCTGGAACCACTGTGC  
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CTTGAAATACCTTCTCATGAAGCATTCTTATCCTGAAAAAGCATCATTGTTACATCTCTTCTTAGACGCTCCTTTGCC  
TTCTGTTTTCAATCTAGAAATTTGTTTTCTCCCCATCTCCATACTGACTAGGATTTTGTGTTGCTTGTTCAGTTTAGAT  
CACAGGTGTTAAAAAGATGATCTTACATATTTAAATGATGGACATATGATTCTTATTATCTTCTACTTCTATGCATTCC  
TGATAGACAACCTCTTAGGCTGGAACCTAAAAACAAGAGGCCATTAACTATTTTGCAAAATAAAAATTGTATTCTTAAA  
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GATAAATTTTAAACAGAGTGCAGATTGTCTTTCACTCTACATCAAACTATAGAGTCCAGAAAAAATATTTTATATCATGA  
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TGTTAATCATTTCTACTCTTTAATAAATAACGGTGGCGTACAGTGAAATAAAGCCAGATGGCTGACACATTGACAAA  
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CCTCAGTCAAATAACAAGTAACTACTTACTGTGCTCTCTTAAAGCCACTGTGCTAGTGGCTAGGTAGGTATAAAAAC  
CACCAGATATTGCAGATAGTACCACAATAATAATTTGCTTTAATCTCTATGACCTTCAAGATCTATTACATCTAGCTT  
CCCTAGGAGACTGGGGTTTCTTGAATTTATTTTAAAAAAGTGATCCAAAACCTGGATCTGATTTTGGCATGGGGATTGCT  
TAACTAATTGGTTTATTAGCTTGAGTCTCATGCATCATGGTGGATATTACTGGTTGTCAAGTTGTGGTTGGTGAATCGT  
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TTTGCTAGTATGTATGTTACTTTGTCTCAGAAATGTAGTGAAATTAATGTAGTGAGATTAATCGGTATCACAGGAA  
TGAAGGTGCAGTAACTTTGGGTTTGCTGTCTGCCATTGACTCAGGGTGGGATGAAAGAAGGGGAACGGACATCATGAC  
CTGCTTCAATTGTTTGTCTAGAAAGGAAATAAGGAAATGAGGTCTGGCTCCACACAGTGTTCAGTGGGGGCTTTAAC  
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AGACCCTAGTGGAATTTCCCAAGGATGTTTTACATAGTTGGGATTCTCAGTAGTTGATGATATTGGGGAAGCAGAACATA  
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AATTGTGTTCTGCTAAGTTGTAGTTACACTGTCTCTTCAAAACAGAGACCATAATAATCTTTGCTGCATTTATTCACTTT  
TATGTTTATGCTAGTGATGTTTGTCACTTAGTTAAATTTAGCTTTAATATGGAAGAAGAGGGTATACCTCTTTCTGGAA  
ATGTAACACTCAGCCTTAAAGGTAAAGGGAGCAGCAAGGTGTCCCTAAAAAGCAACTGTCATCCTGAGCACTGTGTGG  
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TTTGGTACCATCCAGAACCCCACTTACTCTCTCTCTCCACCACCACCTCCAGTCCCTGGTTGCAATGAGCCACAC  
AAAACAGAGGAAAGTAAACGGGCATTACCTTAGTATCAGCAATGCTGGGATATAGTTCTGCTGGTAGCTCCTCCTAAAA  
ATACACCCCTAAAAAATAAAATTTGTAAGAAAAAAGAGTTAAAAATAAAAGTTTCAGTCTCCTTGCCCTGGGCAGGTC

Fig. 6.242



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CTTGGAAGTGTAGAGGATTTTAAAGGCTATGAAAATTATTTTTATGGAATTCAGAGAGGGGGATGGGCTCAAGTTTA  
TATGTGAGATACATATTTACTTATTTAATAGATTGAAAAATTTATTTCTATGTTTATTAGTCAGGGTTCTTCAAAGGAC  
AGAACCTATATGATATATGCATACATAGAAAAGAGATTTATTTAAGGAATTTACTCCACAGCTACAGAGACTGAGAAG  
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AATCCTCTCTTACTTGTGGAAGGTTGAGCCTTTATGTTCTATGCAGGCCCTCAGCTGATTGGATGAGGGCCATCCAAAT  
GTAGGAGAGTAACCGCTTTCCTCAGTCTACCAGTTCAAATGTTACTCTTATCCAAAAACACCTCACACACATACCCCA  
GATGATGTTAATTAATATCTGGGCACCCAGTGACCCAGTCAAATGACACATAAAATCAATCATCCCAACCATGTATAT  
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TGATGGGAACAACGAAATGACCAAGGTCTTGATTTCCAAGAAAAGTCAATCATGAAGGCTTCATGTTGGAGGAGACC  
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GCTTAGGAACCTCTCCAGGGAGCATTTGTAAGTATGCAAAAGTCTGGAACCTTAGGCCAAGTGATTTAGAATCTCTGA  
GCATGGGGCCTGAGCATCAGTATTTTTAAGAACTCCCAAGGTAATTGTAATATGAAGCTAGGACCCAAACCATCAATA  
GCAACTCTGAGTAGATGCCTTTGCCTTGTGCACTGAATACCTTTGTGTCATGTTAACAATGCTTTTTTGTGTCATTTTTATG  
ACGTGTTTCTTGTGATACCCAAAAGCAACAGATATTTTGAATAACAGAGGTTACTATGAGCATACAGTTATGCACA  
TCATTGAACCTCAAAATTTAAGATACTTATTACTAAAATGTTTACTGTGATTTATTGAAAATTTTATGAAGAATTCAT  
TGACAGGAGCAGGTTATATGTTAAGTGCTACTTTTCTAGTTGAATGTGGCTCAGGAGAAATCTAGTTAAGTCAAGTCAAA  
TAGATAGTTTTTAATACTTATATTATTTAAATAGTAGACTTCAATATCCTCAGTTATTTTATGTCTTCCAAAACCAA

Fig. 6. 243

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AAATAATTTCTTAATTTTGTCTAGATTTTAATTGAAATTGGTGAACATATGCACACATACACAAAACTGTAGATTT  
AGTGTCTGTGTATGTAATTGATGAAGTGTCTTAAAGGATTTTGAACGTTTAGAAAACTAATTAAGATATTTAAAT  
TATTGACAAATAGAGGATCTTCTGTACCCAATTTAAAAAGAAGATACAATGATTTGTGGTTAAGTATCCATTTTCA  
AACATAAACAGAACTTCAGAACTTCTAAAAACAGGTTGCTCTTTAGATAATTTCTACATTTCTCTGAAATCTTAT  
TTCTGAATTAAGTCTAGATGTTTACAATCTATCTGAAAAAGTAATGTTGTTATAAACCTCAAATCCGTGCTCATACAA  
ATTCTTACCATTTCCAATTAGATAATACTCTGGCAAGAACTTAAATGCCTGAAAAATAGATGTAATATTTCCCATAT  
GATGGTAATTTAATGTTTATCAACTAAGTATAGTGTGTTGTTTAAATTTTAACTTTTATTTTAGATACAGGGGGC  
ATGTGTCAGGTTTGTACATGGGTATATTGTATGATGCTGAGATTTGGAGTATGGACTCTGTCAACCCAGATAGTGAGCAT  
AGCATCCAATAAGTAGTTTTCCCAACCAACTCTCTCCCTCCCTTCTAGTAGTCTGCAGTATCTGTTGTTCC  
CATGTTTCCGTCCATGTGTACTCGGTGTTTAGTCTCCCACTTACAAGTGAGAGCGTGTGGTATTTGTTTATGTTCC  
CATTAATTTGCTTAGGATTATGGCCTCCAGTTGCATCCATGTTGCTGCAGAGGACATGATTTTGCTCTTTTATGGCT  
GCATAGTATTTTATGGTGTATTTGTACCACATTTCTTTATCCAAACCACCCTGATAGGGTGGGTTTCATGTCTTTGC  
TATTGTGAACAGTGTGGAGATGAACATATGAGTGCATGTGCTTTTGGTGGAAATGATTTGTATTCTTTGGGCATATAC  
CCAGTAATGGGATTGCTAGGTTGAATGGTACCTCTGTTTTAAGTTTTGGAGAAATCTCCAAACTACTTTTACAGTGG  
CTGAAGTAATTTACATGTCCACCAACAGCGTATAAGCAGTCAATTTCTCCACAATCTGCCAGTATCTGTTGTTTTT  
AATTTTAAATAAGCCTAAATGTAGTATTTTAAATATCTAAGAGTTTCTTACCTGAACCTAGCCAATGTATTTTT  
CATCTTATTAATTTACATACACTTTTATTTTACCCCTCATTGATTTATTAGGTATATAAGTAAGCATATTTGTAGAGA  
TTCTTTAATTTTTTTTTTTTTTTTTTATTATACTCTAAGTTTGGGTACATGTGCACATTTGTCAGGTTAGTTAAT  
ATTTTATAGCACTAATATGTCTTTTGTTTTTTAAAGATAAAATTTATAAATGTTTATAAGAGTAAATCAATGTAA  
TAGCTGCTGCTGCTCAGTACAATTAACAAGTTACAGAAATCTTTACTCAGTATCACTACCAATTTTTTCTAATATT  
CTCAATTTAATTTTTTGTAGGTGGTTTTTACAGTTGCCTTTATATATTCTGTCAATTTGTGAATGAGAAATCAAATCTT  
GAATTTGATAATTTGTGTCATTTTTGTGTTCCCTAGCTTTTATTTGTAGACTGTTGGTCCCTATTGTTCTTTTTCATGTGT  
TACTATTCTCTGGATATTTTCTTATAAATTTATGAACTTATGAGATTCATACCTTCCAAAGTGATTTATTGTTA  
CGTGTCTGAATGCTATTAATAAGTGTAGTTTGAAGCAATGTTTCAAAATTTTGTCTACTTAAATTTAGAACAGGATA  
TTTATTTTGAATTTTGGATAGATAGAAAATCTCTTTCTGCCATCATGAACTGATAAATGAGTTATAGGGATGGGA  
GGAGATGGACATTTGACCACATGCAATGCAGTTTCCAAAGTATATAACCATAATCTATATTAAAGGTAAATGCAGTGT  
CAGATGGGCATTACTTTATGCAAGATTGTGTGCTCATGAACCTTACCAGCCAAAGGAGACTATCTCTCACTAAGGCTTA  
TGTAATAACTGCCAGGAGAGAATAATTACAGTGGGAGTAAATTTGAACACATGCAGTAGAATGCTAAAAGTTAAGCTTC  
TCAGAGAAAATGTACATATGCTTGGATTTTACAAATGATGATTTCCAGGTATTTCACTAGGCTGCTAAAATAAGTTAG  
CTATTTTAAAGATAAATATGTTACTGAAATATATCTACATAAAGTACCAATTTATAGGTTTACAGTTTGTATGAATTC  
CTGCAAGTGAACACATCTATGTAATCTCATCTGATCAGGAAATAGAACATGTCAATTTCCAGAGATCCCTGGT  
ACCATAACCCAGTCCCTCCCAACATCACATAAGATTAGGTTTTGTCTGTTTTGTTTTTTTACCATTTTGTGTTCTT  
GGTGAGAGTGTGCTTTTCCATAAGCAATTTCACTGTATCCAGAAACAGAACTCAGTTAAATTTTAAAGGCACTATTTT  
CTTCATAAAATAGAGGGAAGGGAGAATAGGTTGGTGGGAGGAACTCGTGCTTCTGATTCTTTCCCTAGCCTATGATCA  
ACATAATCATGCCCTTAAGAACCTTGCTTTCTGTCTTTGAGTGACATGCTTGGAAAAGTTTTTGAACATCAGTTTGTG  
TTCTTTTACATATTCATTGTATACTCTATTTTATATGGTATTAATAATAAAATGGAACAAACAGAATTGTGGAGGGGA  
AAAAAGAGAAATTTTAAAGACAAGCCTGCCCTCTAATTTCTTTTGGCATGAGTAGTCACTGGGAAGACTCTGGGAG  
CTTGGGGACATTGAGGCATACAGCAGTCAACAAGCCTGAGCCCTCAACGACTGAGTCTGGAAGTTTATGTTCTGAAA  
GCCTAAAAAAGCACTGTGTAAGAGGCTAAGCCAACCTTTTGTGTTGTTAATCTTTTACTGGGAGACAAGATGGAC  
CTTAGGGATAGGGTAAAAAAGTGAAGCCCCAGCCCTTTAAGATATTTCTCTAAACCTCTTAAAGTTAACTCTGAT  
TAATTTCTTGGTTAGAATTCAGTTATGGTTCTGCTCTGCAAACTAATAGGTAGTTTAAAGTGGGAAAAGTAAAAAT  
TCTTGCCATCTCTACATTGACTTGAGAGTGAAAGTAAAGTACAGATTTGTTATCCCAAGACAGTTGTAGAAAAGTGA  
AGATTATGCTTTATAATACCTTATTTCAAGTGGGTTAATATATAACCATGGTTCTTAGCCCTTATTTGGGGTTAGAGAC  
CCCTTTGAGAATCTGAATAAAGCTATATGCTTCTCTGAAAGGTGACCTAGGTACACATAATTTAGCCACTGGCCTTG  
TCCGTTTGCAGGCCCGTAAGCTAATGCACAGTTCCCTCTGAGGATCCCTCAGCTTTATTCTAAAGTCTAAATCTCT  
AACGGTTGCCAGTGGAAATAATCCAGGAGTGATAGAAGTATGGTCTTATTACAGTTATCTAGGAAGGAGACCACTG  
TCTTCATCTTTACCCTTCTTGGTTTCACTTCTCTCTCATGACTGAAGATTCCTTTATTTTCTCTTACTTCCAAC  
TCAAAATTTATTTGGTTTATGCTGTTTCTTTGTTTAAACAGAAATATTCCTTTTGCAAAATGGTAAACACCTTTTATG  
GGGGAACAAAAACCAACCAACTGTTTCTACAGTTGTAGATAGTAATTAAGTCAAACCTTAGTTGGTTTTTCAATTTT  
TGAATTTTAACTGCAAAAAATTAATTTTGTGCAAAAACTTTTATGACTTCAGTTATTAATTTTATTATTTTGA  
TTAATTTTATGTAAGTCAAGATAGTCTAGGTTATTCTGCAAGTATCCAAATCTAAGTGGCTTAATATAACAAATTTTA  
TTTCTTGTCTCTTATACATACCCAAAGAGGGATTGCAAGAGGCTCTACTTATTGTAGTAACCTGGGACCCCAAGATG  
ATTGATGCTTTATCTCAACTCAGGCTTCTTACCAGGGAAAAATGATGTAATGAATCCGTCAAGGTTGCTGAACTTT  
CACCTAGAAGTGACACATACCACTTTTGTCTTAAATAATTGGTCAAAGTATATCCCATGTTTATGTAGGATACCAAGG  
GGAGGCTAAGGCAATCTTACCATGTGACAGAAAAAGGAAAGCTAGAAGTATTTGGTAGACACATTCACTCTTTTCTG  
TACTCCTTTCCAAATCTCTCTAACTTTTGGAGATTGATTGATGTTAAGCAGAAAAAGAGGGTTTGTAGTCTTATTTT  
GGTGAAGAAAAATTTCTTGGTTAACTTTGTCTATATAATATCTGAACCTTAAATAAGTACACAGTGGCATATAATGA  
ACTTAAAGAAAAATAAATACTAGCAGGAATGTAAAAACCTGAACATAACACTGAATTGCTCTTGTAGTGTATGCCA  
CTTAGTCTCATCTACAGTCTAGCCCTGTGAATAACACACACACCTGATTTTATGTTAAATAGGAACATGCCCCCTTCTG  
TTTCATTTAAATTTCTAGTCAACACAAATTTCTTCTAGAAAAATGAATTAAGAATGAGTACTATTTCCAGAGTACATTCT

Fig. 6.24



[illegible]

Fig. 6.245

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GCCATTCTCCTGCCTCAACCTCCCAAGTAGCTGGGACTACAGGCACCCGCTACCACGCCCTGCTAATTTTTTTGTATTT  
TTAGTAGAGACAGAGTTTCACTGTGTTAGCCAGGACGGTCTCGATCTCCTGACCTCGTGATCCACCCACCTCTGCCTCC  
CAAAGTCTGGGATTACAAGCATGAGCCACCGACCTGGCCGTGTGTTAGTTTTATATCTATGTTAGTACCGCAAAAA  
TGTCTAAGAAAGCAGACCCCTTCTACCAACACTACAATGTCTCATATTGCAGGAGGCCCTCATAGTTAGGAAGACAACGTG  
TAGCAAAGCCCTTGTCTCTCATGAGCCACCAGTGTCTGGCATATCTCAATGCACCTCTTCATGATGCTCTAAGCTCTA  
AGTTAGGCCATATGTTGTCATTGAAGCTCTAAGTTAGGCCTATGATTAAAGTCTTCTGGCTCATAATGATAAAAGCCATT  
ATTGTAGGCAGTTAGAACCTGTTGAAGGACAGAGACGTGATGGATTACAGTCTGAGATAATGTAAGTTGTTTAAAAAG  
TGAAATAAAAGAAAATCAAACTTTGCTTTACCTATTCAATTTTTAAATAACCAAGGCATACCCCTTTTGCTGTCTTA  
AGTTTCAGACAAGGGTGCAACTTCTACAGTCATTCTTGGTGGCTTTACATGCTTTATTTGCCATGGGGCCATTAGGTGC  
TATGGGTGTTTTATCCCCACTTTGGTGTCTTTGTCAAGACATCAAGCATCTCCATGAATATACTTTAATCTTTCCCTTT  
TTTGTGTTTTGTTTTTAGGTAAGTACTTTTGGTATTCTTCTTCTTAATGCTGAAAGAAAATGCAGCTGCCTGATGTA  
GAACAAATGGCTTTTGAAAGCAAAATCCAAAAGATAAAAAATAATGTGAACAGTAAAGAATGACACCATACAGTACT  
GGTAAGAATTTTAAGTGGCATTCAAACACCCCTCTCTTTTGGAGAGAGGACTAACAGTACAGGAAGATGCGGGGAGGG  
TGGGGAGGGATTGTTGCCGTGCAAGTAAAAAGAAAATTACAGACAGTGTTCATGAAATATTCATTTACACCTGCTTATT  
GGTTAGATGAACAGCCTTTGGTTCTGAGCTGGCTCACCATTCCCAGGCTGGAAATTATTCACTTAAATGCAGCTTTTAA  
ACATTTCTTAAATCCTCAATGGAACAGATGTGCACATGCTGAGGGAACTTTTTTTTGATCTTTTTCTAGAAGAGGG  
TTAAATTAGAAAAAAACCAGTATTTTTAATATTTAATTTTCATGTGTATAGCTATGAAGCTATATACTTAAATGCTTT  
GTAACATATGATCATGAATATATGTATAAATCTTCAACCGAAAAATCCATAAGCTTTTGACAATAAATGTGTATAATC  
TGGATAAATGAAATACCAGTGAACCTCAACATAATTTATTTATGTTTTATGTTCTCTCTTTCTCATTTTCCATGTACA  
ATTCCTGTGTACATATGAAATAACATACAAAATACAATGTACGTATGCTTCAATGGCATTTTGCCCCAAATTCATAGTC  
CTTTTTATATGGCCGTGGATTTTCGAGATTTAAACATATATGGTAAATAGTATGTTTCTGTTAACTTCAGCATAGCCCT  
TTTAGTAACAAGACATTGTTTACTATAAATTGAGATTATCTATCCAATGTGAGTAAATATATATTAAAAATACATTAA  
CATTTAAGATGAACAAATAGCAAAGGTTAAAAGGTTTCAGAGACCATTACCTGTTACTAAATCATTTCTCTCTCCATT  
TACTAGTCTTATCTCATTGAGTTTCTGTCTGTCTAGAAATGTCTCCCTCTGTCTCTGCTTTATTTAGTTTTTGTCTAT  
ATTCAACTCAGACCCCTATATCATGTACAAAGCTTTCCTCAAGTCTTTGAAACACAGACTGGTTTATTCTGCCCTAAAA  
CATTTTTTAATAGAATCCATGTGTTAATTTTCTGAGGCTGCCATAACAAAGTGCCACAGACTGCAAGCTGAATAGTAG  
GAATTGATTTACTGATAGTTCTGGAGGCTGGAAGTCTGAAGTCAAGAGAGCAGGGTTGGTTTCTTCTGAGGCTCTCTC  
CTCAGCTTGTAGATGGCTGACTTCTCTCTATTCTTCCAGGGGCTCTTCTCTGTATGTGTCTGTGCTTCTAGCTCCTC  
TTATAACAACGTCAATTTGATTAGGGCCACACTTATGACCTCAACTTAATCACCTCCTTTAAACCCTGTCTCCAAAT  
ATAGTCATATTCTGAGGTACGAGGACTTCAACGTACAAATTTTGGAGGTATATGTACGAGGACTTCAATGTATGAATTT  
TGGGTATAGGATTACCCCGTAACAGCCCATGTTAGTTTCTCACTTCATTATTCTCTGATTCTTCCATGTATATTGGTT  
TGATCTTCCCTTAACAAGTTCAAGGATAAGGATTGATCATATTTCAAGTTTGTGTTACTTCAATCACAGTTCCTAGA  
GGGCTGGCATATAATATTAATGCTACATATTTGTTGTTTGAATTTACTGGAAGAAAGTAGCATAACAGGCAAAATAGAG  
AGCCTCTTTTTTCAATTTATGCTGACTTTAGCTCCCTTATCTGGACAGAAAAAACAGTAGCAGAGGTTTGAGTCAGGC  
AGTGGTCAAATGAAGTGTCTCTGCTTCTTCTGGGAGGCCAACAGCATTCTCGTCAGCAGGAGCATTCTGGCGAAAG  
GAAATGCTGATCTCTGCAAATGGGCAAAAGTGTAAGAGCATTGAACCCAGCCTCATACCACAGAAAACAATTTGGGCT  
TGTGGAATAAATTACCCAGTGAAGAGTCTTCTGAAGTACAGGAGGCTTTTGGAGGGGGAAATCATAAACACATTTGT  
GGTTGCAAGGTAGCAGATTGGGTGAGCTGAACTAAAACAAATTTTGGTTTAAAGAAATTGTATTTAAGTTCTGAAGTC  
ATACTTAATTTCTAATAATTTCTAATTGTACACAGGATTGATCATATTTTAAATGGAAGATGTTTACTTCAATAAAAATTTCAACACT  
AAAATGCTGGTTCAAGTTTGTGTTTACTTTCTTCAAGTTTTGTTTATATTCTATTTTTCTAGAGCCAGCAT  
TCAAAAGTAATTTCTGTGCTTCAAAATAGGATCATCTTAAATCAAATTATATGTAATGTCAATGATGCAGATATAA  
ACATGGTGCCACAATTTTATAGAAAATTCTAAAAAACAAAACAGAAATAACCATGTTGCTCTCGTACCAAACGT  
GTCTTTGGGTGGGTTACTAAGTCCACCTGAGTCTGAGATTCTCATCTGTAAAAAGGAATCAGAATACCTACTTTGGG  
CAGTTGCTGATATTAATTTAAATAAGCAAAGCAGTTAGCCAGTCATGTCAAAATAGTTGAGCCCAATGAATGGTCTT  
TTCTTTATCTCTCTTCAAGTTGAATTTTGCACAGTAGATAATCCATCTATCACAGAGGTGTGCAGATGTGACTGATTC  
ATTGATTGAAACATTCATTGCCCCATTTAAACAATGTTTAGGTATTATTATCCACTGTATCCTGGTTTCATGCTGGATG  
TTGGGTAAATAATGATGAGAAGAAACAGACAACCTCAACTTTAATGGAGAAATTGACATTAAAAAGTCTAAAAATATGTA  
TAAATTTTTAAAAATCAGTGTGTGTAGTAAATATACACAGTACCAGGAGATTTTATAACAGGGAGGGTATGTGTAAA  
ATGTGAGGAAATATTTCTCCTAGGATGTAACAATGAGGAGAGTTTCAGAGTATGCATGTGTGCACATATGTGTATGTGC  
ACATGTATGGATATGTGTTCCAAAAGTAATAGTGGTTAAGGTGGTGTAGTGGTGGTGTAGGTGGTGTAGGTGGTGA  
GGAGAAGCAAGAGAATGAAATAAATAAAAGATGAGTGTCTGGGAACAGCATGTGCAAAGTCTGATGTAGGAAACAGT  
ACTGAATGGACAGTACGGTTTACCAAGGGAGGGCTGGTGAGGCTGAGATGAAGAGAGCTAACAGGAAGCCAGTAACCTG  
AGATGAGGCTAGAGAGGAGAGCAGAGGCCAAGTGGAGCAAAACCTTATAGACATATTAGGTCTTCTACCTCAAGAACA  
TGGGAAGCCACCTAATTTTAAAGAAAGCTTAAATGGATGTGTGTTTCAAGTGCAGGAGTGTCTACCGCTCTTAATCTT  
CGAAATATCTGCTAACACAGTTGGCTTTAGTGGGTGGAAGAGTGGAGGCCATACATATTCAATTTGTATTTTGA  
GATTTTTTTTTTGTCTCCTCAATGCTTTTGGCAGAATATAGAAATCAAAGTATGTGTATTTATAGCAAAACGTAGATG  
TTTTTCACCTTATAGGTGTGTTTTATCATTATTTTTGCACATATGATTCCTGTCATGACCCGAGTGAAGGGGTGGGT  
TGCCCTCCACACCTGTGGGTGTTTTCTATTAGGTGGAACGAGAGACTTGGAAAAAGAAAAGACAGAGACAAAGTAT  
AGAGAAAGAAATAAGGGGACCCAGGGAACAGCGTTGAGCGTATGGAGGATCCCGCCAGCCTCTGAGTTCCTTTAGTAT  
TTATTGATCATTCGTGGGTGTTTTCTCTGAGAGGGGATGTGTACAGGTCACAAGGCAATAGTGGGGAGAGGGTCAGCAG

Fig. 6. 256

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ACAAACACGTGAACAAAGGTCTTTGCATCATAGACAAGGTAAAGAATCAAGTGCTGTGCTTTTAGATATGCATACACAT  
AAACATCTCAATGCTTTTACAAAGCAGTATTGCTGCCCGCATGTCCCACCTCCAGCCTTAAGGCGGTTTTTCCCTATCTC  
AGTAGATGGAACGTACAATCGGGTTTTATAGTGAGACATTCCATTGCCAGGGAGGGGAGGAGACAGATGCCCTTCCCTC  
TTGTCTCAACTGCAAGAGGCATGCCCTTCTTATACTAATCCTCCTCAGCACAGACCCCTTACGGGTGTGCGGGTGGG  
GGACGTCAGGTCTTTTCCCTTCCCACGAGGCCATATTTTCAGACTATCACATGGGGAGAAACCTTGAACAATACCTGGCT  
TTCCTAGGCAGAGGTCCCTGCAGCCTTCCGCAGTTTTTGTGTCCCTGGGTACTTGAGATTAGGGAGTGGTGATGACTCT  
TAAGGAGCATGCTGCCCTCAAGCATCTGTTTAAACAAAGCACATCTTGCACAACCCCTTAATCCATTCAACCCCTGAGTTTG  
ACACAGCACATATTTTACAGAGAGCAGGGGTGGGGGTAAAGGTACAGATTAAACAGAATCTCAAGGCAGAAGAAATTTTC  
TTAGTGCAGAACAAAAATGGAGTCTCCTATGTCTACTTCTTTCTACACAGACACAGTGACAATCTGATCTCTCTTGCTTT  
TCCCCACACCCGAGATCTTTTAATATTTCTAACATACTCTTATGTTCTAAATCAGTGACACTTAGAAAGAAATGTTGACT  
TGAACATCCAAGTACAGGTGCTAATTTGACCTAGCAGAAACATTTTTTAAAGGAAATCTCTTGCACCTGAGCATTTGCAT  
TATGTAGCAATGGAAATTCAAACAATAGAATGATTATCATAAATCCCTTTGAATACCTTTGTTAGCAGAGATGAAACC  
TTGGCCACCTGGCTTTTAAAGGAAAGCTTAATGAGCATGTGATTGAGTGCAGGGGACTGTTACCTCTCTTAATCTAGAAA  
CATCATGGGAACACAGGTTTGCATCAGTAATGAATTTTTATAATGTGAATCTTTGATTTTCTTTCGCTGGTAAGAAACCT  
TATTTGGAGATGCTATGTATGTGAGTTTAACTCTCATTTTCCATTCTCTTGAAGCTTTCTAGGTTAACACCTGAAAC  
AGTGGTTACTATAATCAGTAAAGATTTATAACCAAAGTATAAGGAATTTGGGGAATTTCCATATGGTGTGTCTCCACAAA  
CAAACCTCATGTTTCAATATGATATGAATGCATCTCCATCCAAATATTATTTTAACTGTATATTTTCCCTCAGTCAG  
CAATTTATGTAACACATATATTTTCAATTCATCCAACCTCTAATAAGAGACCCCTAAATTAACCTTGAACCTATGATTTTAC  
ACCTTCTGTAACAGTCAATAATTTGAATTTAATGACTAACAAGGACATTTTAGTCATTGCAACTGCTTACAGATT  
ATATGTAAAGGATTACAGGAATAAATAGAGGGGTCTCTCAGTATGAAGTTTAAATAAATACTTAATGATAAAAGAAAAAT  
TTGTCTGCAGTTTTTTTTTTTACAATTAACTTTTTACAAGTTATTATCCCTTAGGCTCATTCCATTCTGCTCCCTTTG  
TTTTGAAACACTGTTATGACATACTACTGTCAGTAATGGAATGTGAGAAATAGTACATATGAAAGACACAGTTTCATTC  
TACTGTTAAATATTACATCATTGAAGGGTTTAAATCCTAAGACGTATCTTTGATTTACCAGCCCAGCCCACTTCCTAT  
TTGCTCTCTGCTCCATTTAGTAGATTTTCATGCTGGTTGCTGGACTAAACAAGTCAAACACCTGCAAGGGCCCTCCATCT  
GTGGCCAGAAAAGTGTGTGCTGGTGTATATTTTGTATGTTTAGGAAGAAATATTGATCTGCTTAACTAAGATGGTCATA  
AGATAATATGGGGTTGTACTCATCTGATTCTCACAAAACCCAGGGTGTCTCAGAACTATACTGATGTGTGGAGATGCT  
ACTTAGGAAATTAGAGGACCAGCATGCATGCTCTTTGGAATGATGTATGCCACCTATCATCTGCTTGGCCAAACAACCT  
GAGCCAAAGACACACCTGGGGTATCTTGGTACTACCTAGAGACCTAGCTAATTTTGCAGGGTGGATTGGTAGAATCCA  
AGGAAATAGTTTTGCAAGTGACACAATTTGGTGGATGATATAATAAGATAATGAAGACTAAATAATTTGAAGAAGGGAA  
ATGGAGATAATTTAGGCTAAGTTGTTCTATTTGCTATTCTTAGAAGTGTCTTCTTACATTTAGAAGAAGAACAATTGA  
TTATAAAATCAGTCTTTGATGCATTAATTTGATCATTCTAAACAGGTGATGAATATTGTCTTATGTTATTTGCTTCCA  
TTACTTAATCTGACTATCATAGAATAGCTAAGAATACTTCTTAAAGATGAGAGTTTGCAACTACAGTCACATAGGCGCA  
GTATCTGTAAACAAAAATGCTAGTAATTTGTTTCTTAAATTTTAAACATTAATCTATTATTGCTAATAAGACCTATTAA  
AATGGACAATAAGTAAGGGCCAGATATATCATGAGTAGAAGGAGTCCCTTTCTACTGAGAGCCTATGGAAAGGACAACCT  
AGATTCCAGAAAAATCTGTTCAACTTCCAGGATGGCATACTAGGAGAAATAAATTTGGGGTCTAAAGAGTAATAAGCAG  
GAAAAAATCTGGTTTTCTTTGAGGCAATGATTAGTTGAAGCCTACACAAATAAACCAATTACAACATTTTGAAGTGAAC  
TGAGAATAATTACACTGGTAGTCAACTCCTGGGGAAAAATATGAAGTTCAGGCTGTAAGCTGTCTAGGCTTTTATTAA  
CTTGCAATGTTCTTAACTGATTACAGGCAAAAAGGTCAAAACATTTTGGCCTACCTAGGTAGCCAGATGGTCTAGAGAT  
AATTTCTTAATTACCAATGACTGTGTTTTATAGTGTCCCTTAGGAACCAAGTTTTTAAACTGTGTCTAAAGAGAACCC  
TGATTTAATTTTTTGTATGTTTTCTTTTATTTTGTGATTATATATTATAATCATTTTTGTAAAAAAAATCCAAACACT  
ACAGAAATATACTTGGATGTTTATAATCTTCGCTTCTCTCTTAGATAACTATTTCTAAGAGTTTTTGTATACATATTT  
AGATTTTTGATACATGTAAATATATATAATCTTTTTTACTAAAATGGTAATTTACAACATGCTTTTAAACAACTTTTT  
TTTTTACCTAAATTTCTTAGCTATTTATGTGAGTACATGTTGCTCTATGAAGTTGTAACAGAACAAAGCAGCGTGCT  
CCCCAAGAGGACTCTTAGATATTTGAAAGTAGCCATAATGGTAAAGTAAATTCATTCCTGACTTTGCTTGAGGAAACT  
AACATCCTCTCCATCTGCTTGGAGACAAGTGTGTTCTTCATGGCTGACACATATCTTGGCAGAGCACATGTGCTGC  
AACAGCACACAGTATGGGGTAGGAACAGGATTTGAGTGATTTACTAATCAAGTGTGGCTAGAAAGAGAGGAGACTTGTA  
CCACCCCGACCTGCATCATGCTCTTGTCTCTCTCTTTAGGGTGAATGTAAAGGGGAATCTGCCAGTTGGGGTACAG  
ATAAACCTTTTGGTTACCAGACTGTGGGGTTTAGATGTCAACTCTTTATAGGAATTGTCTAGGAAAGTCAGCTGTCCA  
GGCTTGGAGACCTTAAGGAAGCATGGAAAGCTGCAGCTCCCTTTTTCCAGGAAAAGGCAGTCACCCGCTCTTCTTGGAG  
CTGTATTTTCCAGGGAGGCTCTCCAGATGGGCTGGGGGACACTGCCAAGTGTAGCATATTTGTCCAGACGACCCAGCATG  
AGCTATCTAGGTGATGTTTCAGACAGTACCACTCATGGTGTCTCTTGGCTTAAATCATTTGTTCTGAGTAGCCTTGAATA  
GTAACAAATGTGATATCTTGACATCATCTGGTGGTGGGTGACAACTGTTAATTTTCTAACAGATTTGGTTTCTGCA  
TGCCTTTTTCCAAGTAATTTAGTATTGCTTATCCTGCTATGCTCTCCACAAAGGGAAGATGATAAATCTTTTAAAT  
AGCATAATGTTTGTCTACTTTAATTTTACATTAATAAATTTGTTTATCTTTTATTAAATACTTTTACAGTAAAGTTTAA  
ATCCATTTTCTATGGATTTTTTCAATTTGTAATATTTCTTCCATTTATAATCATATAACATATACATTTAATAAAG  
TATATAAATATATATCAAGCATATATGATATATATACTATAATTTTGTCTGTTTTCTACTTTCTTCTACTTATGTCT  
ATTTTCTGTATTTTTTCCATATGGACATCATTTTTTCAATTTAATGTCTTCTTAACATTACAGGGCAGTTCTAATGTG  
AGAAGGCTCTCTTATACTGATGGCTAGTTTGAATCATTAAGTCAAGTTATTGTTCTTGGTTTTATGTCTTAAACAAG  
CATCCCTCTCGAACCTTAGAGGAATGATATCTGACTTCACATGCTCTAGGGGATGCCATGTAAATTTTGTAGAAA  
TGTTTAGTATTCTGGCATGTGTCTCTAATTTGTGATGATTAGAGATCTGTGATTAGTTAAACAACCACAGGAC

Fig. 6.247

TGAATTAGCTTCCCTCCGTAACATAAAAGAAATTGAACAGATTGAGTAAATTAAGTGGATGCCTCATTAGCTCCACAAAGT  
TTATTAGAATTAGAGTCAAAATCTAATACAGGGCTTTGGACTACTAATATCTGCTAGCTACCTTTGGGATGATTTTCAGT  
ATCATAGGATCATCTGACCAACAAGCTGTCTCAAAATTCTGTGTAGAGTGAAACCTTGGCTGGACATTAGCTTCACCTG  
GGTAATATTTAAAATACTGATACCTGGCCCCAGCCTGGAGAGATTTTGATTCTATTAAATTTGCCAGAGTTAGGGTTCAAG  
GCAAGGTACATCCAGAGTTTGACAACCACTGGATTGAAGCCAAAATGTATAGAAATGTGAAACAGGTAAGCACTGTTGGA  
ACTAGGCAGATAGAGACAACACATCTCCAGGCACCTAGCTCTGCTCTCTGCTTTCTGATGTAGAATAATTTCCGCTCT  
CAGAAAGTTGCTTCCCAATGAATACTTTTAAAAATTAACCTGGTTTTTTCAGTACATAAGCAGGGTAAGGAGAAAA  
GTTACCTGGTTTTTAAAAACACTATTGTTTTAACTTTAACAGAATTATCTTCTCAAAATACTTAGAAATGGAGTAAAT  
GTTTCTGCTTTGATAACACTGAAACCAAGCTAGAGAGTACAGTTAAAGGGCCATTAAAAACAGTTTTTATTCTATAA  
AAATAAATTAATCATCGAATATTATTATATAAATCAATCATGAAGGAAAATACACATTAAATTATTTATACTAAGATAA  
ATATAAACCTCTATTGGCAAACACTTCGTAGTTAATTTTTCTAATTTACCCTTTCTGCATCTCATGCAAATTATGTCT  
TTCTTGCAATTGCCAATAAAATATGAGATTGGGGAAGGATGTGCAATATCCATGAGAAAGTTTCATGTAAGTGCAAGCA  
ATCAGATTTTCAATTCAGATCCAGAGTAGTAACATCAGACAGCAATATGTCAAGTTAAGCTTTCTGCATTATTTTTATGCGT  
TGCTCAATTTTCTTTGGCAGAGGAGAGATTAGGAGTTTACCTGGTCCAGAAATCGTTGTAGGTTAAACAGGTACCAATCT  
GGGTTTGTTTTTATCCCTTGCTTAACCAATCGTACAGTTAATTTCCAAAATGTGTTATTTTTTAACATGCAAGCAGAT  
TCAACAACGATAGAAGGTGTAGGGATTCCAGCCACAGACAGAGCCTGAGAGAACAAACAAAGCAGATTTCAGAAAGCAGG  
CAAGTAGCGCCTACTTTGTTTTAGTGGTATGTCTCTGCAGTTCAAATCCTTCAGTATCTCTTAATTAATTCATAGAC  
TATTTCCAGTGAGGTTTCACTGAGAATTCCTTAATGTCAAGAGCTCTCTCTGTATCTTAAGCAGTTAGTGTCTATTGAAA  
TTTACTTATGCAATGATTCTTTTACCCTAATATGTATTGAAGGCTTATGATGTGCAAGACATGTCCCAAGTTCTGGTAAT  
ACAATGATGACAAAAATTAATAGTTTCTTTCTACACAGTTTGTGGTTTTATCAAATTTATTACATGTTTAATAAATGTTT  
ATTAAGTGCATAAAATAGTAAAGAAATCAAGATGTGATTTCAGCATTATGTATCAAAACACAGAAATGGCTGAGTGTTC  
TTTTTAAATCCATGTATCATAGTGTATTAGAAGGCAAAATAAGAAAGCAGATCAGAAGTCAATATGGTCCAGTAAC  
AAGAATAAGGAGTCAGATTAGAGTCACATTAACGGTTTCATTTTCTAGCTGTGGGACTGTAGGTGCTTATTTTTCTTG  
TCTTATTTTGTCTTTCTGTTTTTCTTTCTTTCTTTTCTTTTCTTTTTTTTTTAGACAGAGTTTCACTCTTGTGCCCCG  
GCTGGAATGCAATGGCACAACCTCAGCTCACTGCAAACCTCGTTTTCTGGGTTCAAGCGATTTCCTGCCTCAGCCTCC  
CAAAGTAGCTGGGATTACAAGCGCCACCACCATGCCAGGCCATTTTTATTTTGTATTTTTTACTTGAGATGGGGTTTCA  
CCATGTTGGCGAGGCTGGTCTTGTAGCTTCTGACCTCAGGTGATCCACCTGCCTCGGCCTCCCAAAGTGCTGGGATTACA  
CAGCTGAATTTCTATAGTCTTATTGACCATCTGCAATGTGAACAATGGTATTGTGTTTCATTTACCCATTTCAGCCAA  
CTTTTCTGTAACATCTCTTAAGTATAGGGTTTCAGAGATATGGTAGGTTGGGTTTCAGATGACCAAAATAAGATGAATAT  
TCCAATAAAGTGAGTCACACACATTTTGGTTTTCCAGTACATACAAAAGTTATGTTTACATATAGTCTATTAAGTATT  
CAATAGCATGTCTAGAAGACAACGTGCATACCTTAATTTTAAATATTGCCTTGCTAAAAAGTGCTTATGATCATCTGA  
GCCTTCAGCAAGTAGTAATCTTTTTGCTGGTGGAAGTCTTGCCCTTGACGTTGATGGCTACTGATTGATCAGGGTGGCG  
GTTGCTGAAGGTGAGAGAAGCTGTAGCAATTTCTTAAACCAGGCAACAATAAAGTTTACCACATTTATGACTTTTCT  
CTTCATAAAAGACTTCTCTGCAACATGTAATATACTGTTTGATAGGATTTTACCAGATGTAGAATTTTCAAATTTGGAG  
ACAATCCTCTGAAACCCCACTGCTGTATCAGCTAAGTTTATATAATATTTTAAATCTTTTATTGTCAATTTCAACAA  
TTTTTATAGCATCTTTACCATTAGTAGATTTCATCTTGAGAAACCACTTCTTTGCTCATATAGAAGTAAGTCACTGCTC  
ATCTCTTTGTGTGCTGAGATTGCAGCAATTCAGTCACATCTTTCAGGCTCCACTTCCAATGCTTGTCTTGTCTATTCT  
ACCATATCTGCAGTTAATTCCTTCACTTGAACCTTCAAAGTTATCCATGAGGGTTGGAATCACTTTTCTCAAACCTC  
TGGTAATGTTGATATTTTGACCTCCTCCCATGAATCATGAATGTTCTTAATGGCATCTAGAATGGTGACTCCTATCCAG  
ATTTTTAATTTTCTTTATCCATATACATCAGAAGAACTCACTGTAGAAAGTAGCCTTCCCAAATGTATTTCTTAAATAAT  
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TGATTAGTCTGTTTTCTATGCTGTTGTATAAGAAATACCCGAGACTGGGAAGAAAAAGAGGTTTAAATGGACTCAGCTCC  
ACATGGCTAGGAAGGACTCAGACTCATGGCGGAGGGCAGGACAGTCACTTATGACATCTTATGACTATCAGGAGAATTG  
AGAGAGAGCTTGTGCAGGGAACCTCCCATTTTTTAAAGCCATCAGATCTTATGACATCTTATGACTATCAGGAGAATTG  
ACAGGAAAGAGCTGCCCCATAAATGAATCACCTCCCACTGGGTTTCCCCACGACACATGGGAATTTGTTGGAGTTATA  
ATTGAGGATGAGATTTGGATGGGGACACAGCCAAACCATATCATTTCAACCTTGGTACCTCCCAAATCTCATATCCTCA  
CATTTCAAACCAATCATGCCTCCCCAACAGTCTCCCAAAGTCTTAACCTATTTTTCAGCATTATCTCAAAGTCCACAGT  
CCTACATCTCATCTGAGACAAGGGGAGTCCCTTCTACCTATGAGCCTGTAAATCAAAGTAAGTTAGTTACTTCTCTAG  
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CCTGGCTGTTTTTACAGGCTGGTGTGAGTGTCTGCTGCTTTTCCACACATGGCGCAACTGTCACTGGACCTACCAT  
CTGGCATCTGGAGGATGGTAGCCCTCTTCTAACAGCTCCACTAGACAGTGGCTTAGTAGGGACTCTGTGTGGGGGCTCC  
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GCATCCTGGCATTTCATACATCCTATGAAATCTAGGCAGAGGTTCCCAAACCTCAATTCTTGACTTCTGTGCACCTGC  
AGGCTCAACACCACATGGAAGTTGCCAAGCTTGGGGTTTGACCCCTCTGAATCCATGGCCTGAGCTGTACCTTGGCCAC  
TTTTAGTGCACAGCTGAAGTGGCTGGGACACAGGGCACCAGTCCCTAGCCTGTACACAGCATGGTGACCTGGGCTGA  
CCCATGAAACCAATTTTTTCTCTTAGGCTCCAGGCTGTGATGAGAGGGGCTGCCATGAAGCACTCAGACATGCTCT  
GGAGACATTTTCTCGTTGTCTTGGGGTTAAACAATGGTTCCCGTTACTTGTGCAGATTTCTGACGTGGCTGGAAT  
TCTCCACAGAAAATGGGATTTTCTTTTCTATCGCAATTGTGAGGCTGCAATTTTCCAAACTTTTGTGCTGCTTCCCT

Fig. 6.248

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TATAAACTGAATGCCTTTAACGGCACCACAGTCACCTCTTGAATGCTTTGCTGCTTAGAAAATTTCTTCCACCAAATAC  
CCTAAGTCACCTCCCTCAAGTTCAAAGTTCCACAGATCTCTAGGGCAGGGGTAAATGCCAGCAGTCTGTTTGCTAAAA  
CATAACAAGAGTCACTTTTGTCTCAGTTCCCAAAAAGTTCTCATCTCCATCTGAGACCACCTCAGCCTGGACCTTATT  
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CAGGTTTTCTCCACGACATGTGGGAATTGTGGGAGTTACAATCAAGATGAGATTTGGGTGGCGACACAGCCAAACCATA  
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TGTTTCAGGCACAAGCACAGGCAGAAATAGATTTGGTGAATTTCTGAATGGCCCCAGGATTATTAGACTGGTAAATGAAC  
ATTGGCTTCAACTTAAAGCCCTCAGCTGCATTAGCCCCCTAACAAGAGGATCAGCCTGTCTTTTGAATCTTTGAAGCCAA  
ACATTGACTTATTCTTTCTAGTTGTGAAAGTGTAAATGGCATCTTCTTCCAATAAAAGTTTGTGTTGTCTACATTGGA  
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TGCATTTTGTGTTGTGGAGATGGCATTTCCTTAAACCTCATGAGACAGTCTCTGCTGGCTTCAACCTTTTCTTCTGCT  
AGCTTCTCATCTCTATCAATCTTTATAGAATTGAAGAGAGTTAAGGCCTTGTCTGAATTTTAGGCTTTCTTAAAGGAA  
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CATTTGTATTCACTGGAGTAGCACTTTTTATTTCTTCAAGAATATTACTTTTGCACTTCAAACTTGGCTGTTTGGTAC  
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ACATGAAGTGTAGCACATGTCTGTAGAAAAATGCTACCCATAGACTTGTCTCTACACAAGGTTGCCACAAACCATTGTT  
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GCTGTCAAGCTCATTGGAAGACATTACAGTGAATGACATGGGCATTTGTGTTTTTAAAGTCAGTGGCTGCATTGTAT  
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GGGAGTAGATGTGTTTGTCAATTTTGTGCTGGACATGGAGAATGTTCTTTTGTGATGGTTACTATTTCTCTTTGAGT  
AGGAATATCATCTGCTGTGTGTGGGAAGTGGGACTCAAGTATTTGAGAAGAAAGAAGAGGACGTTTGTGTAGTCTT  
TGCAGAAAAATGAAAGTGATTGATTAAATAGTTGTGTAATTTAAAAATGTGTGCACAGTGTGTTGGGTTAAAGTTGTTT  
TAAAAACCAGCCACCTTGCCCTTTTATTCTTTATGCTGTGAAACCTCTTTAGAGCACTCAGTCACCTTTTGGCCACTAG  
ATGGACACAGTGTACTCAGTGCTAAACTGCTGACCCACCAGGTTCTTTTGTACCAGCCAATCTGACAGAGTGATTG  
AGTTGTGAACCTATTGTTATGAATTGAACTTATTTTAGAGAAAAATCTTAAATAACACATTCCATCTTACTTATAGT

Fig. 6.249

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TCATAGGTCAGAGAAAGACTGTGGTGCTACAAAAACATTAGCCAATATATTATTGCTTTTCACGCTAAGTGTAATGTGT  
GTAACATGCTATCTCTTTGAAATTTTTTGCCTTAAAAATGCTAATCAGTTGGCACAAGGCGATCATTTACATAGTCAGA  
ATAGAGCTTTTGGTTTAGCATTTTATCTTAAAAAAGGCAGAAATGGCATTGCTCTGGATGTCAGTATGGTGATTATA  
ACCCAAGTGGTGGAAAAAATACTGCTAAATGGCACAACATAGAACTGAATTCTGCTAGTCAGCTTCCATTTGGTAGA  
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AGTGTGTGACAAATTGAAGTGATTCAAGGAAATCATAGTTCTGTGGAGCTTCTCCCTGTTTTGTAGTGGAGATTGGGA  
ATGGGGGTGGACCATAAAGTAGGTGGTTTTTTTTTCTGCCACTCTTAACTAATTACACACCTGCCATATCCCCAC  
CAACATAAGACTTCAGACTGAGAAAACCTACATAATTTAACCAATGTTAGAATATAGGCATTTTAAACGTGCTGAAAC  
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GTAAAGATATTTGTGGCAGGTAAGLAGAGGGAGTTAAGTAAAGGGAGTTTAAATATGAAAAATTCATATAAAGGCTCCAAG  
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GATGCTGGAACACTCTGGGTGAAGGGCATTAATGCTGTTACAGTGGAACACAGGACTGCTAATGGTATTTTTATGCTT  
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CAGAAGACAACATGTGGATGGGAGGCAGAAAATTATAACAGCACTCACCTGGGGAGCAGTTTTTGTGTGTGTGATATT  
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TGTGCCACTGCACTCTAGCCTGGATGTCTTCCACCTCCCCGCCAAAAGGGATATTCCAAAACCTACAACATTCTACT  
ACATATTCTACATTTCTCTTTTACTCTCCATATTGATACAGAAACAAAACAAACACATTTGAGACTTACCCTGTC  
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TACTATTCTTTCTTCTTAGCTGTGTTTAAAGCCCATACATCTATCTGTGATAATTTGTACACTGTATTGTGCTTG  
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CTGCCAAGTCTGACCCATCTCACAGCACCAGAGGATTGGGGTAGTAACTGCAGATGTAGCACCCACAGGCTGACCAGT  
CTGACCCCTCATTAGGTTCCCCAAAATCAAATCTCTAATGCACCTGCATGGATGCTGCAAGGAATGTGCATAAAGGA  
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ACCGAAGAGAAAAGAGGCAGAAAGACTGGCTAGAACACAGCAGAACTTACCCATTAATGTAATGGAGTTGAGCCTTTC  
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AATCCCCAAAGAGAATGTCAAAATGTCTTAAATCCTAATAGAATTCATATATTTTTTCAATTGAAATAAATATTAG  
GAAACATTGGTTTGAATTTGCATATGGTATACATGTTTGAAGAATCACTCTGTTACTATATAGGTAACACTTATAAGT  
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GTATTTCTAGCCATCAAAAGAAATTATATTGTGAGGCAGATGGCAGTAATATATTTTCAAAGTGAATTATATCCTG  
TTTCCCCATATAGGTAGGTAAATAAATAAATAAATCTATATAAGCAACATGACATAATTCCCAGACTATGAATT  
TCTGCTAATCTGAAGCATTTGATTAAAGACTGGATTTAACTATGCTTACAAGTTGCCGAACTACTCAAAAAGGCTAC  
ATTCTGTTAACTGTGTTATTTTGTCTGTATTATGTCAAATAATTTGACTAAATCATTGGTATTATCAAGGTCATGTA

Fig. 6 250



GAAGCTCTTCTTAAATTCTGATTAAATAATCGACTTTCTTTTACAACACAGACAAATTGCAACAGAATCTGTATTTTCAG  
GCAGTTTCAGCCTGCATAGGGTCAATTTAATACCATATAAATGTTGGGAACAGAAATTATCAGAACTTCAGATATGTCAC  
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GAATTCAGGTTTAGTGCTTCGTAAAGAGTTGAAAAATAGTTCTCTGGTAGGTAAGTAATTTGTTGGGAAGGACAGGACA  
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CAGTTTACTTGTAAAGCGCTTCAGATTAAATCTTACAGAACCCAGGAAGAAATGTATCTGAGTTACAGAACTTGAATGG  
GATTGTGCAAACTGGAGAATCCTTGCCCCATCTGAAGGAGATAGCTGGCAATATGTAGGGAGGGGAACTCTAGGTATTT  
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CACGCCCCGGCTAAATTTTTGTGTTTTTAGTAGAGACGGGTTTTACCGTGTGTAGCCAGGATGGTCTCGTTCTCTGACC  
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CCTCTTGTAACCCCTAAACAAGTCATTTATTTCTCTGTTTTCTCTCTTTAAAAAATTTCCATATGAATTTCTGTGA  
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GACTGGTTATCTCTAGACTGTATGACGACAAAATAAGCAAGGGTTAAATTTCAAATGCATCCACTCTGCTCATA  
CATTGTTGTGATTTAAAAAACACACTTCATTGAATAATTTAAAAATATGGTTGTACCATCTGTTCTGTGGGGATTAAAT  
TGTTTCATGATGGCAAAATAATCAGTTAAATAAATCTAGATACTGCACTCTTATTATTAATAATAGCAATGATATTGT  
TAGTTCAGATGACCCGGCCTTTTCTGTCTCCATATAATCACACTATTGATTTTCCAGTATTGGAAGGAGAACGAGAGA  
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CATTTTCAGATACCAAGGTTTAAGAGGAAATCAACAGGAGCAATCAGTCAGAGGGGTGTTGCCAGGATGGTGAAGCAT  
CTGGGAATCATGATGTTCTCGGAAGTCCCAAAGAACCGGACAGTATGTGGCTTGGAAAAGGGAGAGAATAAAAACTCC  
TGTTTTAGATAATCTGAGGTTTTTCATATTAAAAAGATTACAGGCCAGGTGCAGTGGCTCACGCCTGTAATCGCAGCACTT  
TGGGAGGCCAAGGCAGGTGTATCGCTGGAGTCCAGGAGTTCAGGACCAGCCTGGGCAACATGGTGAATCACTGTCTCTC  
CTAAAAATTTTTAAAAAATTAGCTTGTGTCAGTGGCCCATACCTGTAATTCAGCTACTCAGGAGGCTGAGCTGGGAGGA  
TTGCTGGAGCCCAGGCTGTGGAGGCTGCAATGAGCCGAGATCACACTACTGCACTTCTGCCTGGGTGACAGAGTGAGAC  
CCTGCTTCTAAATAAATAAATAAGACTCAGGCTGTTTTTGAATGACTATGATCAAAGAATAGCACTTTTAGAAGAGTG  
AAATTTAGTTTGATACAAAAGACTTTTCAATATTTAAATCTTCAAACTTTTCAATATTTAAATTTTCGATATTTAAATC  
TGCTCAAAGATAAGCATTTAAATCTGCTCAAAGATAAGCATACCATGAAGCAGGGCTCCTCATGCCAGAACCGAGATATT  
TGTTTTTCTTCAAGGCTGTTTCATGTCATTAGGGGAAGACTGAATTTCCCATGGCTTCTAATGAACCTTTTAACTATGAG

Fig. 6.25i

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GATCTGTTACATGAAAATTTTTTTTTTCAAGATGGAGTTTCGCATTTGTTGCCAGGCTGGAGTGCAGTGGTGCAACCT  
CGGCTCACCACAACCTCCGCCTCCAGGTTCAAGCAATTCCTGCCTCAGCCTCCTGAATA TGGCATTAGAGGCAT  
ACACCACTATGCACAGCTAATTTTGTATTTTCAGTAGAGATGGGGTTTCCCATGTTGGTCCAGGATGGTCTTGAACCTCC  
CAACCTCAGATGATCTGCCCGCCTCAGCCTCCCCAAGTGCTGGGATTATAGGTGTGAGCCACCGCGACCAGTGTTACAT  
GAAAAATTCCTTAGAATAGTGCTTGATGGCAGCAAGTAAATGTTCAATAGATATTAGTTGTAATTGTTATCAGTAGTGAC  
TATTCTATGCATTTGTAAGTGAATTATTTTGGATGGGAATAAGTAAAGGTGTTTAAATGTTAGCACCGGTTTCTGTT  
GCTAAATAATTAAGGTAGTTAGTAAGGTCTTAGGCTACTTGTAACTAATTTACTCTTAATTTGTCACCACCTTTATGTTT  
TCCATTATTGCTTTTACATTCTATGTTACCTAGATTGGGATTAAATTCATCAAATTTAATATGAAAACCTTTAAGTGACT  
GCTAAATCACAATTGCATATATTAAATATCTAGTGATAACGTAGCAATAGTCTATCAAGAAAGGAATGAATCATGACC  
GAAAAATGAATCTCTTTTCAATTAATTAAGAGAGATGTTTCAGTTTGAAGAACTTACAGAATCTTAATGGTTAAGCTCTAG  
GTGACGTTAGCTTCAATTGGATTATTTTCTCAGGTGACAGATTGCTACATCTTAGGATGGCAGCTAATATCTATTGAAG  
GTATTCTTTTTTTTCTTCACTTCTTCAATTTATTTTAAACAAGCAGTGTACCAACCACTGCCCATGCCTGCACCTAGCTGCT  
TACCTCTACAGAGTGTCTTCTACCTTTTATCCCTTTTGGAGTCAGTCATCACAGGAAGACCGCTCTCATGCTACCTCT  
ATGTCCCTTATATCCCAACCCCAAGGGCTCCATGGCAGCAAGCACTCCCTCTTCTCACCCTCATCCCTGAACCTCTTGG  
GCTCCTTCCCTGCTGTATTTTCTCTGTATCAGTTATCATTTCTCTTATATATTTTACTTACTATGTCCATTTACCTAT  
CTCTACTGGAATGTGAGCTCCATAAAGGCAGGAATATTGTCATGTGTTCTATTTGCTACTGGGTACCCAGAGCCTAGAA  
TAGTAACCTGATAAATATTTGTTGAATGAGTGAATAAGGCCTAAGTGTCATGGAACTGATACCAGAAAGGTGTTATTT  
CTTCCCAGGGTTACCGAAGCCATTATGGCAGCGCAGCATTGTGACCCAAAGTCACTTGGCTCTGAAACCAACATCCC  
CATTCTTTTTTTTTTTTTTTTTTTTTTGGACAGAGTCTTGCTCTGTCACCCAGGTTGGAGTGCAGTGGCAGCATCTTCACTC  
ACTGCAACCTCTGGCTCCAGGGTTCAAGCAATTTCTCTGCTCAGCCTCCGAGGTGAGTGGGATTACAGGTGTGCTGCC  
ACCATGCACAGCTAATTTTTTGTATTTTGGTAGAGACGAGGTTTCCCATGGTGGTCAAGCTGGTCTCGAATTCCTGAC  
CTCAAGTAATCCACCCACGTCGGCTTCCCAAGTGCTGGGATTACAGATGTGAGCCACTGCACCCAGCCCCAACATATT  
CATTCTTGATCTCTCCCTGCAAGCAAATAACTTTGAAATTATGCTGAATAAACTCAGGATCTAGAGATATTGACAAT  
GACAATGATATTTCACTGCTGTATGGATTAAATACAAGGAGACAACCTTTTGTATCATTTACATTTAGGAGAACATTCA  
GGTCAATATTTGCTGCTAATTTATCTCCATGTGGATCACTTTTGTCTTTTCTTAGATGTATTCAATCTGATTTAGT  
TTATTATGAGTTTCTCTATTATTGTTTTTTTTTCTTGGATCATTGATGCAGACCCTAGAAGAGGTGGAGTACAGAAA  
TAGATTTGGAGAAGCAATAATGAGTAAGCCTCAGTCTTTGCTCTGAGATGCATTCAAGAGTGGTTAGGCAACATTTG  
AAGTGTGCAGTTCAGAGCCAGAAGATAACCAGATAATTTATAATCCAAGCAATAATATTGCAAAAGTAAAAGGAGGCA  
CTATTTAATCATCATTCAGGCAATAGCTGTATACTATTTCAGACAACTGAAGAGTAAAGTCCCTAGTTTAAAACT  
CGACAAACCTAAATATGCTTGCACATCTTTTGTAGTAATAAATATTACCTTGCATCTACTATTTTCAGAGACACATAC  
TAGGCACTGTAGCAATATATATAGAACAGTGTACAGGGCACTGTGGTGAATTTAAAGACAAGTCAATATCTTCTATC  
TTGTGGTTGAGAATCACTTTAGGACAGAGAACATTAATAAATAAAGCAGTAAATGATGGTGAAGCTGAATT  
AAGCTTGATGTGATGTTAGCCAGCCACAAGGTTTCCAACAGAATTACTGATATGATTGGCTGTGTACCCACCCATATC  
TCATCTTGAATCCTAGTTCCCATTTGAATTATAGTTTCTTATTAATCTTATAGTTTCAATTTTATAGCTCAGCCA  
AATCCCATGTGTTGTGGGAGGAGCCCGGTGGGAGGTAAGTGAATCATAGGAGCAGTTTCCCCATGCAGCTGTCTGTA  
TAGTGAGTTTCTCATGAGATCTGCTGTTTTATAAGCTTCTAGTGTCTCCCTGCTGGCACTCATTCTCTCTGCTGCA  
CCCTGTGAAGAGGTGCCCTTCTGCCATGATTGTAAGTTTCTGAGGCTTCCCAGCCATGCAAACTGTGAGTCAATTAA  
ACCTCTTTTCTTTATAAATTACCCAGTCTCAGGCATTTCTTCATAGCAGCATGAGAACAGACTAATACGCTGATGCTGT  
ACCATTCTTATTTCTATCTCATAATATTGTCAATTGAAATCAGTCTGTCTTGTATGATGAATTGCACATCAAATGAAT  
TGTATGCTTTTTTTTTTCTTAGATAGGAGTTATGCCATCTACTTCTGTGTGTATACATAGTACATGCTCAATTAATG  
CTGGCTGGCTGGTTGGGGTAGAAAAATGAATTGATAGATTTAAAAAAGTCACTGGCAACCAATATAGAGCCTGTTT  
GCCAAAGACCCCTCCTCTTGTGCTGAAGTAGCTAGTTGACAGAGTAAGAAGTTCAGCAGCATGATTATTTTTTATCTTACAA  
CTTTATAATGATACATTTGGTTATTTGGAAATAAGTTTAAAGTGTTTAATTCTTTCCACTGGTTCTACTGTTGGAAA  
TTCTTTTGCAGCTGAATATTGGCAACCGTTTGTATCTTGGCAAGTAGACTATGCTTTTTAAGGATGAAAGTGTGGGAAG  
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CATTTCAAAGCAAAATGCCACTCCATTTAATCAATCAACAGCTTATAAAGAGCTTGGAAATATGAATTGTGTGGGCCCTA  
CCTGAAATTTCAATGAATGAGCATCATTTTATTCAGTTGGTTTGTGCTGCTTTAGCTCAGCCTAACTTTGGATATA  
TAATAGGTTTGTGAGATAAGATTACAGTAGCTAAGGGCTTTTGTGATGGGAGAAATTGAAACCAGCATAATTTCCG  
GTACCTGTAAATGGCACTTGGACCAGGCCAATTTACTGTCTTGTATTTAACAAGCAGAACAAAACAACTTACTT  
AGATACCTGATTCATACTTCTCTTCTAAGGTATCCGTCCATGTGGTTTTCTCTTTTACTTAAGTAGGTTTAAATAAA  
CTTGCTTTTATGTGACCAACGGGTTTTCTGTTGGGTTTTGGAGGCAATGACAGTTAATAGTAAATAATATTTTGGAGGA  
AACCCTCTCAAAGAGGCTCCATTAGCTGGAGAATAAAGCATTTTTAAAGATGAGACCTTATGCTTTCATTCTCA  
AAGTTACCTGCTTATAAAAAACAAACAGTTGATTGATTGATCAAAAGTTATCTTGTATATAAATTAAGTGGGCTG  
TGACTAGCTGATTATGGGATTTTATGTTCTTTAAGTTTCAAGAGACATACAATTCAGTCTCAACAGTTTTCATCAT  
TGAGAGATTAGGTCACTAATAAATTTCTGAGAACTTATCCATCTGAATGTTAATCTTTTACTAGAAATAGT  
ATGTTTGTTCAGTTGATGAAGACTTTTGTGTTGGATGTAAGCTTTCAACTCATTTAGATAAATACCAAGGAAGTTTTC  
AATATCATTTTAAATGGATTGATGATTTACATTGATTGGCTATTCTTATTTAAGTAGTTGGGCATTAAAGATA  
TTTACATCTTTTTTATTATTTTGTAAAGACTGTGATGACCTTCATGATAGTTAAATCTTCAATTGCACTGTTATTCTCT  
TCTGACTGTAGCCATTGTGTGTAAGACTGCAAGGTGAATATATGAGTGTAAAGAGTAGATTAAACAAGAAAGCTAA  
TGTATGAACATAAGTAGCTGACCTTAAATAGAAGAGTGTAAATTAATTTGAATTTGCCAGTACACTCTCAAAACACA

Fig. 6.252



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GAGCTTGATTAAATAATGGCATTATACTGAGCTTATTCAAGTATTTGGATAACTTTTCTTTACTGAACTGAACTGATA  
GCCAGGCAGGCACATCTCCAACACCTCTAATTAATAATCCACATTATCCCTTGCTTCTCTGAGAAAAGATGTTGCTCTC  
ATGTTCTCTTTGGGCACCTCTTTGCAAAGTATTTCTGTTTGATTGCATATGATGAATAGCTCCACTACTTCCAATGTATTT  
CAGTTGTCAAATATTTATAATTATTATTCTTGGGAAAGTAACTGAGAAGGGAGTTGAGGAAAGACTTGGACAGTTCTTT  
GGAGCATCAGGACCTTACAATTTTCACTATCTTGTTCATAAGCAAATGTTGTTTATAGTTCTCTGGATTACAAGGTCAA  
AGAAGGCAGAATTCCTGCCCTCAAGAAAAGTCATGGGGAAGAGTTGTAAATGCATGAACAGCTATGAAACAGTGTGGTA  
AAGTCATGTGAGTTGGCAAATAGATGAGAGGCTTCTAAGTAAACTGAGGAATGAAGAATGTTTTTGGGAAGAGATTA  
CGCTTAAAGGAATTAGCCAGCCAGAGAAGAAAGAGAAAAATGTTCTTGCCAGAGTACCTATCATTGGAAGCCCCAG  
TGGGCCAGAAGAACAGACTGTGTACAGGAAAGACACTACCAAGTGTTATTTGTGGCTGATACAGGAGAGGAAGGGAGAG  
CAAACAATAGAGCATCTCTGTGCTGAGTATTGGAATTTAAATTTTGAACCTTCATTACTAAATAATGTGGAACATTGG  
ATAATTTCAAGCAAAGGACTCACATGTTTCATGTCTTGCATGAGTTTGTCTAAGATTTCCATTTTAAGATAATCTTGGTA  
GGTAAGTGAAGGATAGATTTGAGGAGGAAAAATGGAATATTAATCTAGGCAAAACATAGGGGGAAGAGATAATGTAG  
AGAGATTAAGAATGTGTAGAGAGGTAGAGATATGCTGTGTTCTCTGGAATCAGATGAATGTGTTCTTCACTACTGACT  
CCACCCTTAACCTCTATGTGACCTTGGGTATATATCTTATCCCTCAGTGTCTTGTGTTTTCTCATCTGAAAAATGAGT  
ATAATAATAGGGCCCAACTCATATTTTATGAGAATTAGTCAACCTGCCAACACAGTGCCTAGCACATTGAATGCATCT  
GATCAGTGTTAGCTATTATCTATTGACTATTAATATTATTGTTACTATCAATAGTATTTCATGTCTCTAGGGTTTGTGAC  
CTGATTAGCAGTTATGTCTGGTTATTGGCTGAATGTTGCCAGTACTAGGGAATATAAGAAGAAATGTGGGGAGAGGG  
AGTGGAGGAGGGGAGGAACACAGTTGATTGAATTACATTATAAATGCTCAAATGAAGTACTATGGAACCTTACAAGTG  
GAATTTTCTCATGTGCAGCTGATGGTAACAGCAGAAAAATGTGAATCTGAATAAAGAGGTGGGAGTTTTCAGCACAT  
AAGAATATTTAAAGCCAATTCATTGGATGCAATGAGGTAGAGTGAAGTGAAGATCAAAATCAAGAACCACTCAAGCAAT  
GAGAGCAGATGCAAAACCCCAATTTTTGTGGGTCTCCAGTCCAGGTATGAGCAGAAAAACAGAGGGTTGGGGAGGGAAGG  
AGTCTTCCAAGCCATAAGCCAGGGGAAATCGTTCAGTCAATCTTATGCTCTGATGTGGTCTAATACAGATGATAACCT  
CATCTAAAGATGAGACTTCTTTAGGAACATCCTAAAGATGAGACTTCTTTAGGAACATCCTAAAGATGAGACTTCTTT  
AGGAACATCCTAAAGATGAGACTTCTTTAGGAACATCCTAAAGATGAGACTTCTTTAGGAACATCCTAAAGATGAGACT  
TCTTTAGGAACATCCTAAAGATGAGACTTCTTTAGGAACATCCTAAAGATGAGACTTCTTTAGGAACATCCTAAAGATG  
AGACTTCTTTAGGAACATCCTAAAGATGAGACTTCTTTAGGAACATCCTAAAGATGAGACTTCTTTAGGAACATCCTAA  
AGAAGTCTCTCCAGCATTTAAATTTGCTAAACGTAGGCCAGGGTAGAGTTAAAGGCTGAAAGAACCTTAATTAATATGT  
ATTATTCAGTTATTAGAAGAAAGTCTTATGGATTGAAATTGCTGCTTGTGGAATTAATCTTTAATTGCTGTGCAGG  
GCATTATTAACGTTGCAACGTCTAGCATAGTGATGAAATTGATGTTCCAGATGCTTTTCATGTGAGTTCTCTTTTCTT  
TTAATGTTCTCAAGAGCATAGAATCATGGGGATGATAAGTGAGATTTTGTCTAGACTCTATACCTGTCTTCCATAGAAA  
TCCCAGTATGCAAAACAAACAAACATAGATGGGTAATCATGGCCATTCTTAATAAGATTGAGCCCTATTTTGAGG  
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GTCCCCAACTACCTCTCTCCAGCCCCAGAGAAAGGGAATGTTGACGATAGAAAGATTCCATTTCTCTCCCTTAAGG  
CACCTCTGCTAGTTGGCCAGAGTTCTCACAGACTCTGAATCTTGGCAGGCTGGAGTTTAAACAGTAATCCTCTCTCAT  
CCAAATTTAAGTACAGGTAATCCCCAGGAGCCCTGCCAGGCTTTTGGTAAATAATTACCTGGGTACAAGCAAAATGC  
CCCTGCTAAGAAAACCTCTGGAATTTTACCCATCATAGGACACATAGGTCTTACCATAGAGGTTTATATCTTATTCTTC  
AATTTCTGATTGTTACCCCTCCTAGGAAATCTTATGTGAAGCAATCTTATTCTCTTCTACTGGGCAATCTCTTAAAT  
TAGCTGGCATGTGAAATGCTTCATTGAGCTTTTGTCTCTCAGACTCTCAAATGAAGGAGTATGTCCAAAGAGCCTCTT  
TATGCAAAATCTACAAATTACACCCAGTCATACATCACAATTAGTTGGCAGTCATTAGGCATTACATCCATATTGTAA  
AATTAGTGATGTTTCTCCAAATTATGAAATATTATTTCCATTAAGAAAAATATACTGAAGAGTAAAAACATAACAGAA  
TTTTTGCTATTATTTATCTCTTCAATAATTATGCAATTAATAAAATTTACTATTCTTACTTGTGATGAGTGT  
TCTCTCATTCTGATGAGACTCCAGACTTCTGCCTTTTGTACACCTGTGCAAGCCTTTCTAAGCTGTTTATTTATGTCC  
CAATATATATTTTCAAGTTTCAAGAAAGGCTGTTCTTACTTTTGGCAGACCTTAATAGTAGTTTATTTTATCATCAAGGA  
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GTCTTGGCAGGAGTGTGGAGGAGTTGACATCTTCCAACATGACTGTGGGAATATGAACCTGCCATAGCCTATTAAAGGGA  
AAAATGTTTCAAAATTTGTAAGCTAGCAATCCATTTTTCAGAAATACAAGCACCAATCAGTAAGAATATATTAGCAAATGT  
GTTTATTGTTTATATGAGTCCAAATTTATATGTCCTGCAATAAAGGACTCATTGAATAAATAATGGTACATTTATGCCA  
TGGAATCTTATATAAATATTGAAAAGAACTCAGTAGGTCTCTGTGCATTACAAAAATAATTTTTTTCATGATTGACTTA  
ATATTAATAAAGGATTATACATAGTATGAGCCACTTTATTCAAAAAGGAAGGAGAATCCCTATACATGTGTGAGGGTT  
TGTGTATTGTGTGTGTTATATTTATATTTGTATAAATAAAAGTTTGTCTGCTTTTCCCTCCCATTAATCCTACCAAGG  
AAGGGAAGAGACAGCAATCTTTTATCTTACATTTCTGTGTGCTTTTGGCATGTTAAAAAATAGCATGTATAATTTT  
GTAATTGAAACCTAAATATAAGAAAGAAATATTGAAATAGAAATGTTAAATACTATGCAGCCATAAAAAAGAAATGAG  
AGCGTGTCTTTTGCAGGGACATGGATGGAAGTGGAGGCTATTATCTTTAGCAAACTAACACAAGAACAGAAACCAAT  
GCCACATGATCTCACTTACAAGTGGGAGATAAATGATGAGAACTCATGAACACAAGGAAGGACACAGCCCTGGGGTCT  
ACTTGAAGGTGAAGGTGGGAGGAGGAGAGAAGCAGAAAAAGGTAACTATTGGGTACTGGGTCTTAATATCTGGATGATGA  
AATAATCTGTACAACAAACCCCATGGCACAAGTTTACCTATGTAACAAACCTTCACATCTACCCCAACCTTAAATA  
CAAGATTTAAAAAAGGAAATATCTACTCTTTCAACCTTAAATTTCTGGATTTTAAACAGTGTCTGCTGTTTAAAC  
CCAAACAGTGTCTGAATTTGGCTACTGAAGAATAAATGTAGCCCTTTTTCAGCACACTGTATGTTTACCCAGGTCCCA  
GGATGCTTAAATAAATGCGGTGTCTATTCAAATCTGGATAAGAAATAATTTTTTCAAATAAAAAATTATCTCACAGAA  
TACTCTGAACACCTGCTACTCTCATTACCTGAACACTTGTGGTTTTTGTGCTATAACTCTAGCAAATGGCATAAAGGC

Fig. 6.253

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TAGAAAACTGTGGGATAAAGATACAGCATTTCTCTAAGACCTGCTGCCTTCAGTAGAATTATTTAATATCCTTTCTA  
ATTTCTCCAACCTATTTTCTACTGTTATGAAAAACAGCTTACAAAGAATTAGTAACATTCACTATCAATGATTCCATA  
GATCTTCGTTCAAAGTGCAGGTAGAAGGTGCATTTCTCAAAGAGTGTTTTAAACGAGGAAAAAAATGTGTATCATCAT  
CAACGTTTTAGTGAATAAAGACATTGCTTACCGTTTTATGTTCTGAGAGGCTAAGTTCAGTTCATCATGAATAGTA  
ATTTATGAATAAGAACCCACAATTTTTTACCAGAGAATTGGAAAAACCGCCCATAAACATTTCCATATACCCATCTCATT  
TTCTAAGTATCTATAACAGTTTAGTGAACAATATTCCTCTTCGAAAATATAGCAAATAATTATTTCTTCTCATCAGA  
TATGCATGCTTTGTTTACAGGTAAATACTCTGATTACCAAACCTACTATTACATTAGGTGTAGTTCCTTTCAACGTTA  
GACAAAAATGGATAAAACCTTGCTGCTACTCAGAGATTGGTCTGAGTGGAAATAGGCTTTGTGGAGCTACAGAATT  
TCTGCTTTATCTACTCAGCCAATAATTGGTCTCAGAGCATGAGCCTGGTTAGAAATAAGCAAAAAGCTTCTGTATCCATG  
AACAGAATGAACAGAAAAAAGGTAGTACATTTAGCCTCCGAGAAACACGCGTTTACTTTTGAAGCAAAGAAGCACCGG  
GCAACCAAGTGCAGCATATGCTGAAATCTATTATCTGACATGTTCTTTCCAGCCTTCCAGGAATGCTGGTCTGACT  
ACTCAGATTTGCTTTTACTTCTTGCTTTTGGATATAATGAGTTTGGCAAGCAGCTGTGAGTACCTGACTCTGGGGAAG  
GTGGCTAGATTTCCGAAGCGCTTATGTTTCATGGATCACCATACGCGATCAACATGCCAATTGATATTAGCCACATAGGA  
GACGGTAACTGCTTTCTTTCTCTAGTTGTTTGTCTAGTGAATAATGTGTTTGTGTCCTTTGGTAACTGCTTTGGATG  
TCTGCTGAAATGGGAGGGTCAAGGTGAGAAGTTAGTTTTTATTCAACACACTGGATAGTTGGGAAAAAAATTAACCAGA  
GAGGAAAGCTGGAAATAGTTTAGCTATTTAGCAAAAGCTGATCTGGTTTCAAGGTCTGTAGATTTTAAAGAAATTGAGAG  
ATTGTCAGTGCTTTGATTGCCATCAAAATCACCCATGATGAGAATTTGAAAGAGGATTAGCCAAATAATGGATATATT  
TATTGATGGCTATATGGCTGTTTATACCAGATGCCAGTAACCTATAATCTACATGTGACATTCCTTAATGCATCATAA  
CACATTAATGCAATAAATGAGTTATAATTCTACATAAATGTTTGTCTTCTGTAGTTGCTAGGGAGGGAAGAACAAGGT  
TATGTATTTTCTCTATAAAAAAGTTGTCTATTTTAGATCTGTGTTCTACCCCCGACCCCTTTTATGTAGTATCAGA  
ATAGCGATGATATAGTTAACTAATATGTCCAAAGTCACCCCTCAATTTTGGTTTTATACAACGTCATTTTCTTCAGCA  
ATTAACAATGAACCTTCAGAAGCATTTATAAAGATGTTCCATTCTCTGTGAAAATTCATTTCTCCCTAATTTTATGA  
ATCCACATAATGAAAATCCAAAATTTCTAAAAGCAATGTATTTTACTTGGAAAATGTCATTACTATCTTACTCTTCTACT  
TTTCTTTTCTAATTATATCTACACAACTCACAAAGCATGCATTTTGGCAGATTTACCTTATTATAAACATGAAGGG  
ATGTTTAAAGTATTAAGTTTCTAAACCTTCAGAAAGCTTTCTGATTTTGTGAGACAATATTTTATTCTTTTCTCC  
AGAGTAACTGCTTTTCTGTCCAGCTCTATCAGTATTGACTTTATGACCTGCTAGCAGCACCAGCAACTATTTTAA  
AATACATTGAGAAAAGTGTGCTTAAGACACCCCAACATGGCTCAGTTGCTGTGCTAGTACCTCATTCCCTTCTGTTG  
GTGGGACGATACTACAAATCCATACAAGTTGCAAAATCCACATGAATATCTAATGTCCCTGTTTCATATTACCTTAATTT  
TTCTGCTTTAAAGTAATCAACTTTTGTACAAGTCAGTCAAAATATGTTTATGTATATTGTGTATATGCATAGACCC  
AGAAAATTTAGACATATACCTATTTAGGCTTAAATTTGGGCATCAGAGTATTTTACAAGAAAATATATTTGAAAGG  
CATTTTACAATAATTAGTATTTAATTGTATAGGTCTTGGGATTTGTAAAAATACCAGATCCATCTTTTCTTTCAGTAGA  
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ATCCAAATCATAGAGGTTGTCTTTTATTCTGTTACTCATTTTCTAAAGTTGTAATTTTAAACCTCAACTTCTTTTGT  
AATCTGTTGAGAAAACAATACACTTGGAAATGGTGAGTCATCATCTTAGATTCACTAAAATCTACCTAAGTTTGAATGG  
TTCTTTTTCAGAATGCTTGTGGGACTAAGATTTATCTAAAGTAGCATGTTTATGTTTATTTTTCATATCATCTCGGTTG  
TGGTTTTTGGCAGAAAGAAAATGTTTTCTAATTACTTAAAAAATCTGAGGAAGGAAGGATGGAAGGGAGGGAGGGAA  
AGACATCTAAAGAAGAGTAGCTATGAGTTGATTTTACGCTTACCCAAAGAAGCAGAGATTGCGGGACAAAAAATAAAA  
GATAAAAAAATTTGGCTTTTACGAAAAATCCATAGAGAAATGAAGTAGGAAATCAAATGCATAAGTGCAAAACATAGC  
TCGATTTAAAGCTAAGTATATCCTTATAAAATAATGACTTCTGAAAGAACAGCATGTTTTTCTTGGAAAAACAGGGAAA  
TAATTTCCCAAATTATTAGAAAATCACCTAGATTAGACACATGACCACATGATCATTTAATTGCTCTCAATTTTATTTC  
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CCTACCATCTGTGATTATAATTACTTTCTATATTTGCGATTTAAAAATGTTTTCTTTTAAATTTTGGTAGCCTCTGTA  
AATTGTACTGTCCCACTTTTCTTTTGTAAAGAAATATAATTTCTTTCAATTTTATGAAGCTTTTATGTCTCAATTTTA  
GTATAGCAATTTCTTTTTTTTTTTTTTTTTTGGAGACAGGGTCTGTGTCTGTTGGCCAGACTGGAGTGCAGTAGCAATCA  
TAGATCAGGGCAGCCTAGAACTCCTGGGCTCAAATGATCCACTTCAGCTTACCAAGTAGTTGAGGTCACTGTGCCAGGC  
TAATTTTTTTGTTTGTGTTTTTGTGTTTTTGTGTTTTGCCCAGGCTCTTCTCAAACAGTTTGGCCTCAAATGA  
CCCTCTGCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCAATCAAGCCTGGCCCTTCATACAGAGATTTAAA  
AATCAGATTTAATCTGGCTCTTCTAACCCTCCTCACCAATTGGACTGTAAAGTTTTTGTAGTGTGTGGATCACGCTCTT  
GGTTGTGTTACTTCCCAGTGTCCAGCATAGAGCCAGAACAGGTTAAATAATAAATGTTTGTGTTAATAAATAAATGA  
TTAGAAAATGCATGGTACATATTTTGGCATAGGGGCGT  
TGTATAAAATCACTTCCCTGTATGCCACAGTATGGAGTCTTTGGCAAGATTTTGTCTTCTGTTATTCAATTTGGATCAAT  
TAAATCCCTTCCCTTGTGTTTCCCTGTAGAAATGCATGTAGCACTGACTTTAGATTACTGGCTTAAGTGGTTGGGGATC  
ATGCATTTTGTCTTACCAGGTGAGCAAGGAGAACTGAAATAAATCACTTCTGTATTCAAAAAGTATATATTGTGA  
TATATGTAATGT  
AGGAGGAGAAAAAGTCACTGTGGGAGGTGGCAGAGGGGAATTTCTAGAGGGGAAACAATACTGCAACTGTAAAGAAAATG  
TAAGAAATTTGATAGAAGCACAAATTTCAATAAATCAGTTATAAAAATTTATGACATATAAGCCCCAGTTCTGTTGTCT  
TGCTATAATGTAAAAGTCACATTTTTTTTAAATCAAAATGGAAAATAAAAACCTAGTAGCAGTGAATGTGGTGAGACAGT  
AGCCACTGGCACCCCAAGGCAATGGAAGCAAGTGCCCTTGAGCACTACTTTTACAGCCGGGTGTGATGTTTACCTC  
ACCCAGCCGCTTCTTCCCTGCATTTTGGTGGCTTGACACCATTACTGTGCGGGCAGGGTGGGGTGGTAGGGGGTGTCT

Fig. 6.254

TGTGGGAGTGCTGGTGAGGGTCTTCCCTTGCTGCCTGCTCTGTGCTCCCTCTTTCTGGTGATGCAGCTGTTCTGGTAT  
ACTCTCTGGCCTCTGTTTTTCTAAATCCTTTAGGTAGGCTTGCTCTCCCTATTATCGCTGGGATCTGAAAAAAGCAGG  
GTACGAAGATCCAGAAGACAGGAAGGAATACAGTAAGTGTGAGTGAAGGTAAACCAGCCTGCTCTCTTCTGTGGAACG  
ATCACAAGGTGATGCACTTAGATTTATGACCAATCATCAAGCTATTAATTTACTCAATGGTGATTAATTTGTTAGGA  
CGGTACATAAGAAAACTACAGATTTGGTGGCTTAAACAGCAGAAAATTTGTTTTCTCAAAATCCAAAAGTGTGAAT  
CCAAGGTCAAGGTGTGACGAGGTCTGGCTTCTCTCTTAGGACTCTGGTTGTCTTTCAGATGGCCACCTTCTCACTGTGTT  
ATCTCATGGCCTTTCTCTGTGCGCAGGCATCGCTGGGATCTCTGTATGTGTCAAAATTTCTGCTTTTATAAGGACAT  
CAGTCAGACTGGATTAAGGCCACCCTAAAGGCTTATTTAAATTTAATCTCTCTTTAGTGGTCTATCTCCAAATAT  
AGTCTCATTCTGAGATACTGGTATTTAGGGCTTCAGCATACAAATTTTGGGGTAGACACAATTCAGCCCATAACAAAT  
GTGCTCATGAAATGATTTACTAATAATGATTGTGGAGAGAGATAGTAATCCGACTGTGAATCCTGAATAATTAGTGGCT  
TCATGTTTCATAAAAGTGGAATCAATAATGGGCATGAACCTGCACGAGGGAGGCATTCGGGAGAAGAATAACGTCCTTT  
TCTGTACCAAAGAAAAACAAGTACACATTTGCAACAAATAAATCTTTCAAAATCAACACCTTTATTTGAACCTTATA  
ATCATTCAAACGTGGCCTGAGCTAACATTTGCTTTTTTATAGCTTTTATCAAGAGGAGTGGAGGTATTAAAAATTATTA  
TGAGGGGTGTAGTGATTTTCACTGACGCAATTTACCCCTCCACCTTTCATGCGAGGGGACATTTGGCAATGTCTAGGGA  
CTTTTTTTTATGTAATAAGTGGGAAGTAGCTGATGATTTCAAGTAGGTAAAGAATAGGGATGTTAAATCTCCTATAATA  
CACACGACAGCTCTCACAAACAAAAATTAATTTGACCCAGAATGTGAGTAGTGCTAAGGTGGAAAAAACCTTATGTGAA  
TCAATTAATCAGGGAGAACTTCAGAGCTTTTTTAAGACCTTTATTTATATCTAGATGATGATATTTTTTAGGTATTC  
ATGAAAATACTTTCTTTTACCTTTCTTGTGGTAAGCACAAGATAACACTTTCTTGCTGGTTAAAAATGGACACTGCT  
ACACTTTTTAAAAATAATAAGCATTCAGTAATTTCAAACCATCTGTCTCTGATTTGTCTGAATTTAGTGTGGCTTTAC  
TGCATTTTTCAGGGCTTATTATTTCTTTTCAGTAGGGAGACTACTAAGATTTTATTAAAGATAGCTGAATAAATGATCAAAT  
ACATTATTGTAGCTCCAGACTAGGTAATAAACATTGAGATATGCTTTTCAAGTAGTGGTAAAAATACTAGGCAAAATTA  
CACATACACTTACATATATTAAGCGACCATCCTGTTGGCCTGGTATGTGAAGCTCTGCTGAACCTTTGCCTAAATGCA  
GGACCCATCGATTGTGAATGTGTGACTACTTGTGTGTTTTTCATCATAACCAGCTCATCCTAATAGCAAATGATATGTT  
TGGCTGTGTCCCCACCCACATCTCATCTTTAATTATAGTTCCCTTAATCTCCACATGCTGTGGGAGGGACCTTAGTAGC  
AGGTAATTGAATCATGGGGGCGAGTTTCCCCATGTGCTCTGCTGATAGTGAGTACTCTGAATCTGAGTGTGTTTTTA  
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CTTTCCACCATGATTGTAAGTTTTCCAGAGACCTTCCAGCCATGTGGAACGTGTGAGTCAGTTAACCATCTTTCTATAT  
AAATTACCCAGTATTGGATATTTTTCATAGCAGCATGAGAACAGACGAATACAGCAAAGAACAGTTTTATGAAGGAA  
AACTTTGAAAACAAAGGGACTACTTTCTTTGATGAGAGGCCCTTCTTTCACTTTAAACAAACTTCAAATTATCCTCA  
GAATTTGTTCTAATTCTCCCTACTTCTGGGTAAAAATTAATAGCAGTAACAGATTTAACTTGAATGTATATCTCCAGTT  
CCCCATTCTCTTCTATGTAGTGCTGCCAAACTCAATGATTTGAAACAAAAAATACCAGGGACCTTCCCCATCTCC  
CATGCTCTTTTCTTATGGCCAGACCTGGAAGTCTCTTAAGTGCTCTCTCTCCCTCAGCTAACCACTTACCACT  
ATCCAGTTGCGAGTACACTCTTCTCTCTCACTCACCTTTGATGCCATCTCCACTGCTACCATTCTGGGTCCAACC  
TCATGTTATCTTGCTGAAAACCGCTAACTTTATAACTAGTCTCTGTTCTATCAACATCTCTCTCTGACTGTCATCCA  
CAGATCCACTTTCTAAAATGCCATCATGACGCTTCCATGCTTATACCCTAGCTTTTCACTGGCTACCAAAAAAAAA  
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TATACTGTGTATTTTAGGTATAAAATACTACTAGCTATACCTATTTTTTGCTAGAGTTCCATTCTCTCTCATTGTT  
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CTAGCTGTTTTTTCTTCTGTGTTCTGTTACTGCATATCATAATAAACTTAATTTATATATTTTCTATCTTTCTCT  
CTCTCCCTAAGAGTGGCATGTGGAAGAGTTGTTTCAGAAAAAATTTGGCAATGGAATGCTGCATTAATTGGAATGGAA  
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TAAATATGTGATTACAATTGTGAGAACTGCTCAAAGGAAACAAGGACCCAGTGAGAGTATAAAAAATAAGTACCTAACA  
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CATGAATGAAGCCCTGATGTGTTAAACTAAAGGATAAGGTGTCTGAAGTGAATGAGGCAGAGAGGAGAGTGGCAAAA  
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AGCTCCTCAGACAAGATGGAATGTGCAATGAATTTGAAAAGATGGTCAGTGCTTCATTTCATGTGGTTCTCAGTAGAGCA  
TGTGTTACTCATCTCTCAGGCCCTCATCATCCCCAGGGAATAATCTCCAAACGCTCAGACTATGTTAGGTGCCATTTT  
TGTACTCTTACTGGGTTCTGTCTCTTTTGAGCAGTTGTCAAAATGCAATTTACATATTTATGTTATTTTATGGCCTTA  
AGGGCTTCTCCCAAGTTCAATCATAGGACCATGGAAACAAGGTTGAAGCCTATGTTTTAAACCATATATGTGTCTGGTG  
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GTAATCAGACAGTAAATATATGTGTACCCTTTTGGAGAAAACATTAAATTCATTCCATTAGCAGGCAATGAGTTCTTTAT  
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TGAATTTCTAAGGCTGATAGATGCTGGGAATCCCATATGATGAGTCTGTGGAAGCAGGACATTCCAGCCCTGGGGTTGC  
TGTTGTCTCTGACTTCAGTATATGTTCAAAGTCATCTCAAAATGAAAGTAGGAAGATGAGTGTAACTCGCACATCACTG  
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TACACGTACTGTGACTGAGGAGAACCTGATCTGTAAAAGAGCAATTCAGTACAGTTTACCATCCAAGGACTTACCGA  
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CACGGTAAAAGTGACTATGTCAGATTCTTGCCACATAATCTAAGAGATGACTCCACTGAAGTTTGTGTTACTCTACCAT  
CAAAAGATGTATCTATGTTTACAGACATCTTTTATTCAATTTGAAAAGAAATTTCAATGTCAATAATAAATATTAGCC  
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TGAAAGAGGATGAAGTACTCTCTGAAAGGCACTGCTCAAAAAGAGGGTGGCTGGCAGAGAACTCATGACATGATA  
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CCTCTACTAAAAATCCAAAAATAAAATTAGCCAAGTGTGGTGGCATGCACCTGTAATCCAGCTACTCTTGTGTCTGA  
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TGTTCTCTAAATATTGTCCATGTGTTCTGTTAAGTACCATGGAGAAAGCAGGAGTAAATATTTTGGCAGCTCTGAGA  
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GAAGTTCAATAGGTGTACAGTTGTTTTTGGCTAGACATGATTTTGTGTTTATTTCCCTTTCAGTAGTTCTGAAA  
ACCATTTTATCTTTAGATACATTATTTTCCAGGAGCTTGGGTATTTTATGAAGCTGTTTCAATGCAATTTAATGTCC  
TTTGTAAATGGATTTCTTTATCTCTTCCCAATGCTCTTGGCTGGAGATGTTACTTTTTATTTGCTTATCGGTGTGAGC  
ACCTCATTGCTATAATCAATAGATATAGTACTTTAGCATTCTGTACATTTTAAATATGATATATACCAATATAATGTAT  
AAATGAAAAGTTATAGATAATTTTGTCTTAAAGTTTTCTTTTATAGAGAATTGTTAACAAGGATATACAGCCAAATATGT

Fig. 6.256

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TAAAATAATACCTAGAAATTAAAAAGGAGTAAAGTAGAATAGTTTATCTGTTGTTACTAAGACTTCATACACAATATTTTC  
GAAAAGTGGGAATATCTCTTGGGTGAAATACTTTCATATATGTATTGTATGTACATACATGCAATATGTACACACAGAAT  
TATATAAAATATATGTATATGTATACATCTATATGTACAGAACATATAATTTTATTAGCATTCTTGTAAATGGCATT  
ATTATAAAATCCAATGACCTCAATTATTTCTATGGGTAAGTGCTAAGTATGTCAAGAGAGCTGGCATAGAAAATGGAAAA  
GCACTACACCCCTTAGCTTGCAAGTAGATGTGAATTTTCTGCCTTTGACTTTGTTGAATCTGTGATGAATCATATGTTT  
ACTCTGATTTAACATAAAACATCTGGATGATCTAACTTTGGGGACACATTGCTTCATATGCACTGAATGCCTGAAAATTG  
GTAGAATTTTAGATTCTTTTCTTTATAAATGATACTACCCGAATTCCTGCAATACCTAGAGAGTTACAAGTGCTTAGC  
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GGATTATTGTCAACAGTTCTCAAACACACCATTGGATTTCATCTACGACTACGAACGAACCCCCATGAAAAAAATT  
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CCTCTTTGGGCTTGTCTCTGGGATTCTCTGATAAAATTGGCTTTAGATTGAGACTGACGTGAAGATAGAGCTGGTCATT  
GAAAGACAGAAACAGATGTGAATGAAATAATTCTCCTTTGAGACATAAAAAATGTAAGATATACCAAGAAAGGGGAAT  
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AGACCAACGCTGGAGTATAGAAATATTATGAGACACTTCGTAATTTTAGGTCCTTGGTACACATTTAAAGGTAAAA  
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TTAAGTAAGACTAAAAATTTAGTCTTTAGTCATACTAACCCCTTTCAAGTGCCCAACAGCCTCTTGTGGCCATTGGC  
TGCCGTATTAGACAGTTCAATTTAGATTATCTGGGTTTGAACCTCAGAGTCTGCCACTCACTGACTGTATTGGCAAGTT  
GTTGCCAACCTGGGCAAGTTTCTCTTTTATGCTTCAAGTTTCTCCTCAGTGTGAGCACACCTTTTCTTGAAGAGCT  
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CTGTGACTTCATTTCCTGCTGCTACCTCTCCTTTTGCATGGATAGCTGCAATGATCTCCTATTTAATTTAGCTCAG  
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TTTTGTTTGTGTTG  
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ACCTCTCTGAGGTTACATTCCATATCTTTGAAATCACAGTAACAAAACATAAGGTGCAGAACTATCTTGAGTATTAA  
GAATAACGTGTGCACTGGCATTGAGTGGGTTGAGTGGAGCAGTGAACCTCTGTTACTTTTCAAGTACAGTCAAGGAT  
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TTTCTAACTAGACTGCAAGTGTCTGGACTGAAACAAATGCAATAGAAATCTGAGCAGATATGCAAGATATATATA  
TGTGTGTGTGTATGTATATTGTTGTGTGTGTCACATGTTTGTATGATATCAAGGGAGAGAGGCACTTTTATGTGTAT  
TGATTCATTCACTGCTCCCAAGAAAGCATCATTCTAGGAGGAAGTTGAAAATGTCCCTATTTTATCTATGAAGACTCTA  
GACTTGAAGAGTTTGAAGTCTTCCCAATCAGTCCAACTCTTAAAGTGTAGAAGCAAAAAATTACAGTGTTTACACA  
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TAACCATCTGTCAATCTTTATCTACATGCAATTGTACCCAGGTTTCAAGGATTTGTTGGGAGGGAGAAAGGTTAGGTGGTTG  
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TTTTTTTTTTTTTTGAGATGGAGTCTCACTCAGTCACCCAGGCTGGAGTGTAGTGGCGCATCTCGGCTCACTGCAAGCT  
CTGCTCCCGGTTTCAAGCATTCTCCTGCCTCAGCTTCTGAGTAGCTGGGACTACAGGCCCCCACCCTACGCCCCG  
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CGCCACCTTGGCCTCCCAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCAGCCAACCATGGCATTTTTTTGTAG  
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AGGATATCAGTTATGACTTCTCATTGAGTAGTCTCATGTTAGACAAAATAGTTTCCCATATTTTGGTGAAGGACCAG  
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GTCAAAGATTGCCAGTACAAAGTAACAACCTCTCATTGTATTGCTTAAGTTAATCATTAAATTTTCCATGGATCAATA  
CCCTGTAGAAGCATGAGATGCAGCAGTGTCTCAATTTTATGTGCTTGCCAAGTAAGAACAGCCATGGGCGAGATTGT  
TGGGAGCCGTGCCATGAGCTACAGACCCTCAGCTCCCCCTATAATCAGTTCTTCCCCCACTCCAGTGTCTCCCACTTG  
CCCTAAGCAGAGCGTAATTGTGGATGTGTAACCTACCGCAGAGGGGAGTATGCTTTTTATGTTGTTCAATTCTTCACTTT

Fig. 6. 257

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CTCTTCTGCAATTGAAAGTTGAGCTGTTAGATTTCTTGAAATGAAATGGTGACAAGAGAAAGTAACAGAAGTAGCCTTT  
ATAAGTGCCCTGACTTCTGGGTAACAGAAGTGACTTAAAAAATAAAGTACAAAACGTTGCATTTAATGTAAAAGATG  
ACTGCATTAGTACAACCTTGAACACATTCAAGTTCCTTTTTCAGAATAACCAACCATTAAGGAGTTGACAAATATTTTATG  
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TATAGATATTGAGTCTGGCTTACCTCTGTATCCTGTTGTGCTGATAAACCAAGAACCTTGCAAAAATAGATGCACGATA  
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CCCAGCGTCATTAAGTAAAAGGATAGAGAATACTTGCAATACATTTGGCGTAGTGTTAAGAATTTTTTAAATGTTTTTA  
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CTGTAATCTGAGCTACATGGGAAGCTGAGGCACAAGAATCACTTGAACTGGGAGGCAGAGGTTGTGATGAGATCGTGC  
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CTCGTGGAGATAGAGAGTAGGATGCCATTTATCAAGAGTGGGAAGGGTAGTGGGAGGAAGAATAAGATCTAGTATTT  
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CAGGTACACTGATGTAAGGGTAGACTCCAAGGCCTTGGGCAGCTCTGCCTCTACAGCTTTTGCAAGGTGAAGCCTCCA  
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TGGGACCCACAGAACAATGGCTTCCTTCCACAGTTCCTACTAGGCAATGCCAGGGGGGATTCTTTGTGGGCAGGGCT  
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CTTAATACCAAGGAAGCCACAAAGGCTTACAGCTTACATGTCCAGAGTGGCAACCTGAGCCATACCTGAGGCTCTT  
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TGCAGCCTGCTTGAATTCCTCCCAAAAATGGCTTTTTATTTTCTATCACATAGCTAGGTTGCAAAATTTCCACACTTG  
TAAGCTCTGCTTCCCTTTTAAAGTAAAAATCCAAGTTTAGGTTATTTCTTTGCTTCTGCATCTGAGCATAGGTTATTAG  
AAGCAGCCAGGTACATCTCAATTGCTTCAGTGCTTAGAAATGCTTCTGCCAGATACCCTAAGTCATTAACTCTTAAG  
TTCAAACCTTTCACAGGTCCCTGGGCATGAATATAATGTAGCCAAGTTCTTTGCTAAGGTATAACATGGGTGACCTTTGC  
TCCAGTTCTCAATAAGTTCTCACTTACACCTAATACTTTGTGAGCAGGACTTTTACTTTGCAGATCACTATCAGCATT

Fig. 6.258



TTGGTCATGACCAATTTAATCAGTCTCTACCAAGTTTCAAACTTTTCCTCATCTCCCTGCCTTCTCCTGAGCCCTCCCAA  
TTCTTCCAACCTCTGTCTCTTACCCAGTTCCAATGTCTTTTGACATTTTCAGGTATCTTTATAGCAATGCCCCACTCC  
TTGGTACCAGTCTTCTATATTAGGCTGTGTGGCATTGCAATAAAGAAATATCTGAGACTGGGTAATTTATGAAGAAAT  
AGAAAATTAACCTGGCTTGCAGTCTCTGCAGGCTGTACAAGCATAATGCCAGCATTGCTAAGCTTCTGGAGAGGCCTCAG  
GGAGCTTTCAATCATGGTGGAAGCTGAAGAGAGAGAGCAGCTATCTCACGTGGCAATAGGGGGAGCAAGAGAGAGAGCGGG  
AAGGAAGGTGTTACACACCTTTAAACCAAAGAGATTTTATGAGAAGTGTCTCACAAAGCTATAAGGGAACCACTCCCAT  
ACTCAGACACCTCCCACAGGCCCACTCCAACACTGAGGATTACATCTCAACATGAGAATTGAGGGGAGCATTTCAAG  
GAACACCACCTATAATGAACCCCAAGACTCTACAAGTCCAGTTAAATCATTCAAGGCTCCGAGTCAGTATTTTAGTGT  
TCCCTGTTTGAATATGAATAGATAGCCAAAGTCTCCACAAAACCTCTGAGGAAATCTTCAACAAAAAGCCTAATGCAAA  
AAATGAAAATAATGATGATGATTAGGTTGATATAAAAAAGAGTTTAAAGAAACAAATAGACGTTTCAGAAAAAATAAACTT  
CGTAGCCCTAGACAGATGACAAGTTATCACATTAATGAACAAAAGGATACTATACAAAATTATCAAGTAAGAACAAA  
GAGAGTTAGAAATTTAAAAAATGAAGAAGATGCTAATAAATAAATCAGAGATGAAAAGGGAGATGTTGCTGGGCACA  
ATGGCTCACACCTGTAATCCCAGCACTTTGGGAGGCCAAGGCAGGCAGATCATGAGGTGAGGATTTGAGACCAAGCCTG  
ACCAATACGGTGAAATCCCATTCTACTAAAAATACAAGAATTAGCCAGCGTGGTGGCACGTGCTGTAATCCCAGCTA  
CTCAGAAGGCTGAGGCAGGAGAATTGCTTGAACCTGGGAGGCGGAGGTTGAGTATGAGCCAAAGATTGTGCGCACTC  
CAGCTGGGATGACAGAGCAAGACTTCTATGGGGGGGGGGGGGGGAAGGAAAGATAAGGAAAGATAAGGGAGACGTTACA  
AGCAATACCACAGAAATTCAAAGGATCATTAGATGCTACTAGGAGCAACTATATGCAAATAAATTGGAAAACTAAAA  
AATGATAAATTCCTAGACAAATACAACCTACCAAGATTTAACCATGACGAAATCCAAAACCTGAACAGACCAATACCAT  
CAAGATTGAAGCCATAATGAAAAGTCTCCAGTAAAGAAAAGCCAGGATCTGATGGCTTTACTGCTTAATTTTGCCAA  
ACATTTAAAGAAGTAATATCAATCCTACTCAAACCTATTCTGAAAAATAGAGGAGGAGGGAGTACTTCCACACTTATTGC  
ACAAGGCCAGTATTACCTCATACCCGAAAACAGACCAAAGGCACATTGCAACAGAAAACTACAGGCCAATCTCCCAT  
GAACATTTATGCGAATACTCTCAACAAAATCTAGCAAGCCAAATTCAGCAACACATTAAAGATTAAGTATCTGGTAC  
CAGTGGGATTTTTTCCCAAGGAAGCAAGGATGGTTCAACATAATGTAATCAGTCAGTGTGATACATCATATCAATGAA  
CAGCAAAAAACATATGATCATTTCATTTATGCTGGGAAAGCATTGATAAAATTCACATCCCTTCATGATAAAAACTC  
AAAAAACTGAGGATAGAAGGAACATACCTGAACACAAGGAAAGCCATATATGACAGACCCACAGCTAGTATCATATCGA  
ATGGGGAAAAATTGAAAATTTTTCTTCCAAGATCTGTAACATGACAGGGATGTCATTACCCCTTGAGCAATCAGACAG  
GAGAATGAAAGGATATTCAAATTGGAAGGAAGAAGTCAAGTTATTCTTGTTTGAGATGATATTATTTTATATTTGGA  
AAAACTAAAGACTTCACCAAAACACTACTAGAACTGGTAAACAGATTCAATAAAGTTGCAAGACACAAATTCACATA  
TAAAAATCAGTAGCATTTCTATATGCCAATGGTGAACAATCTGAAAAGAAATCAAGAATGTAATCCCATTTATAATAG  
TCACAAATAAAATCTTAGAATTAATCTTACTGAAAGAGTGAAGAGGTTCTACAATGAAAATGTATAAAAAACGGATGA  
AAGAAATTAAAGAGAACACAAAAAATGAAAAAGATATTTCATGTTTCATGGATTGGAAGAATCAATATTGTTAAAAATGTAC  
ATAGTACCCAAAGCAATCTTCAGATTCAATGCAATCTCTATCAAAATACCAATGACATTCTTCACAGATATAGAAAAAT  
ATCTTAAAAATTCATGTATAACCACAAAAGACCCAGAATACTCAAAGCTATACTGAGCAAAAAGAACAAAACCTGGAGGAA  
TCATATTACCTGACTTCAAATAACACTACAGAGCTATAGTAACCAAAACAGGATGGTTCTGGCATGAAAACCCAGGAAC  
AAATTACATACATGTACAGTGAACCTATTTTTGACAAAGGTGCCAAGAACATACATTGAGAAAGGACAGTCTCTTCAATA  
AATGGTTCTGGGAAAACTGGATATCTATATGCAGAAGATGAAACTAGACTTCTATCTCTGCGGTGACAAAAATCAA  
ATCAAAATGGAAATAAGACTTAATCTAAGACTTCAAACATAAAACATTGGAAGAAACAACTTGGGAAACCTCTCCAG  
GACATTGGCTTGAGCAAAAGATTTTTTTTTTTTTTTTATAGACAGAGTCTCACTCTGTTGCCAGACTGGAGGCTGAAGTG  
CAGTGGTGTGATCTCAGCTCACAGCAGCCTCTGCCTCCTGGGTCAAGTGATTCTGTGCCTCAGCCTCCTGAGTAGCT  
GGGACTATAGGTGCACACCACCATGCTGGGCTAATTTTTGTATTTTAGTTGAGACAGGGTTTTGCCATGTTGGCCAGG  
TTGGTCTCCAACCTCTGACCTCAAGTGAATACCTGCCTAGGCCTCCCAAAGTGCATGGATTGCAGGTGTGAGCCACTG  
CGCTGGCCTGAGCAAAAGATTTTTTGAGTAATACCCCAAGCACAAGCAACCAAGCGAAAATAGACAAATGGGATCA  
CATCAAGTTAAAAATACCTGCGTAGCAAAGGAAACAGTCAACAGGTGAGGAGACAACCCACAGATGGGAGAAATAT  
TAGCAAACTATCCATCTGACAAGGCAATTAATCCAGAATATATTAGGAGCTCAACTCCGTAGGAAAAAATATGTATA  
ATCCAATTAATAATGGGCAAAACGTTGAATAGACATTTCTGAAAAGAAAGACATACAAATGGCAAACAGTCATATGAAA  
AGGTGTGCAATGTCAATTGGTCATCAGGGAAATGCAAATCAAACTGCAGTTAAATATTATCTCACCCAGTTAAATGG  
CTTTTATCCAAAAGACAGGCAGTAACAAATGCTGACAAGGATGTAGAGAAAAGAGAACTCCTACACTTTTGGTGGGA  
ATGTAATTTAGTACAACCACTACGGAGAACAAATTTGGAGGTTCTCGAAAAGCTAAAAATAGAACTCCCATATGATCC  
AGCAATCCCACCTCTAGGTAGGTATACCCCAAAGAAAGGAAATCAATATATCTGCAATCTCCATATTTATTGTAGC  
TATTCACAGTAGCCAAGATTGGAAGCAACCTAAGTTTCCCTCAATGACGAAATGAATAAGAAAATGTGGTACATATA  
CACAATGGAGTAGTGTTCGGCCATAGAAAGAAATGAGATCTGTTCATTTCGAACACATGGATGTAACTGGAGGATGT  
ATTGTTAAATGAAATTTCCAGGCACAGAAAGATCATCTTCCAGTATTCTCACTATTTAAGGGAGCTGGAATTAAGA  
ATTGAGATCTGGAGATAGAGATTAGAGTGATGGTTACCAGAGGCTAGGAGGTGTAGTGGATGGGAGGAAGTAAGAAGT  
GGGGATGTTTAAATGGGTACAAAAATATAATTAGATAGAACAAATAAGATCTGGTATTTGATAGCTCAACAGGGTACTA  
CAGTCAACAGTAGTTTATCATACATCTCAAATAACTAAGAGAATATAATTGAAATGTTTGTAACTTAAAGGGTAAATG  
TTTCAGTAATAGATTCCCTGTTTACCTGATATTATTATGCAATTGCTTGCCTGTATGAAAATATCTCGTGGGCCCCAT  
AAATCAATCAATCTATCTATCTATCTGTCTGTCTGTCTGTCTGTCTGTCTGTCTACCTACCTACCTATATTATGTAC  
CAACAGAAATTTAAATTTAAAAATATTGTTTTGGAGACGCTGAGAAAAATGGTGTACATATGATCAATCAATAA  
AGAAGGTAAATATAACTCCAGGAAAAAACAAGGATGTTTCCATAAATAAACAATAATTATGGCACATCACTTTGGTTTA  
TCAGTAAACGTTACTTTTGACGGGATGATACAATAGAACACTGAATGTTTATTTAGCCAATAATTGTTATATAACTGTA

Fig. 6.259



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TGGGAGGATAGAAAGAGGGAAGTAGAGAGGTGAAATGJTGAAAGAGTGTGAAATCTTCATCATTTCATAATAGAAAGTCA  
GTTAGAAATATGGAATTTAAAAAATAGTTTGGAGAGCCTTATGAGAGGGTGGCACAAGAGACTCCTGCAACTTGTT  
CTAAGCCCTGTGCATACAATTTGGGGTGTGTGGGTAGTTTAAATAATTATTTTGTAAATATAAAGGAACCAAGCAAC  
CAAATTTCTGGATATAAATGTCCTGTGTTGATTATCATGATAATAGGTAGACATCTTGGATTGGAATTTTAAACATTT  
GAATGGAATACCCCATTTCCCTTTAATCTTTGATAGGTTTAAACATGGTCACTAACTGTAGAGTAGGGACTTGTCTGTC  
TCTTTATTGTCAGAAAGTGTGACTGGCTACCCCTGACCGTTCCGGAGAGGAGACATGTACACCTGGCCAATCAGACCAGC  
AGATTCAGTCTGCTGGTGTAGTGAAGTTGCAGATGTGAGGGACAGCTTGTGCTGTTAGGTTAAATATCTCACTTCAG  
CTCTCACTCTAAAGATGATTATACTAGTATTCTTCACTTTTCACTCTTTTCACTAGCAAGCAGGATACCTTATGAAAA  
TAATTAGGATGAAAGAGGTCACTCTATCACAATAGTGAGTTTGAATTACACTTTAAACGAGATGATCCTCCTTAG  
GAAAAGCAAAATAAAACGAATTTCCATGCCATTGTTGATTCTTCACTTGAATTAAATACTAACATAAAAGTTGGTTTTCT  
GTGCATAGCCTGGAGAATCTTGTCTCTCAGAATTATCATGCCCCAGGCCATTCTTGCAGATTTTGAATTTGCTTTGTC  
TCAAAACATCCAGAAAATCTTTTGGACCTTCGGGTGGTTGGCAGAACATGTGTTGTGAGGGCACCTCAGTTTGAAGA  
AAAGCCCTGAACCTTAGTTCAAAGAAGGGCTTTCCAGCATGCTATTCACTCAGCTTAGGACTGCCAGGCTTCTGAAAG  
ACAGGTGTGTGAGAAACAAAGTAAATAAACAGAACTCACAATGTCCAGACCTTCTCTCCAGAGCAGCACAGTTCCCT  
TGCTGAGCGGCAACAGCCAAGGCTTTAAGCTGTTCCCTCTCCCTTTTCTGTTAATTGAGAAAACCAATTGCTGCAAGAG  
CAACATCAGCAGAGCTAAATGTAATGGAGTTTAAAGAGAGACAAATAACCCACTGAGAACCCCTAACATTTTCACT  
GTAATACCCCGAGAGTTCCACACCAATAAATTTGGTATTCCAGTATAAAGCTCATCTCTCAATTGCACGCCACCTCCCC  
ATCTTATTCACCTCTCTGCAATTATTAAGGAGTGATCTCCCCATGGGATCAAAATAGATAGATAGATAGATAGATA  
TAGATAGATAGATAGATAGTCTCTAATATATGTATTAGAAACAGAGTCTGTGTTGCCAGGCTGGAGTGCAGTGGCATG  
ACCATAGGTCACTGTAACTTGAACGTTTGGGCTCCAGCGATCTACAGGTGTGAGGTCTACAGGTGTGCACCACCATG  
TCCAGCTAATTTTTAAATTTTTGTAGAGACAGGATATCTCTATGTTGCCAGGCTGGTCTTGAACCTCTCTCTCAAA  
TGATTCTCCTGCTTGGCCACCCAAAGGGCTGAGAATACAGGTGTGAGCTACCATGCCAGCCATAACATGAAATTTA  
CTTATGTTTTATGTATACCATGTGCACATAGCCTGAAGGTAATTTTACACAATATTTTAAATAATTTTGTGCATGAAAC  
AAAGTTTGTGTACACTGAACCATCAGCAAGGAGTCACTATCTCATGTCACTGACCAAAAAGTTTGTAGACTTTGGAGCA  
TTTTGGATTTCAGAGCATCTTGAATTTTAGGTTTTTGGATGGGGATGCTCAACCTGTATATATGCATACATGCATATTT  
ATGTAACATACATAATGGTACCTAAACTTAGCAATACTCATATGTTAGCTATTATTTTTGTTGGTATTACTATGAAT  
AATAACTATTAGCATTTTCTCTCATATCTAAATGCAGTTGGTAAATGCTAAACTCATAGGAATGTTGTAAAGATTTAT  
TTTTTTATTTTTTTTATTATTATACCTTAAGTTTTAGGTTACATGTGCACATTGTGCAGGTTAGTTACATACGTATACA  
TGTCATGTCTGGTGTGCTGCACCCACTAACTCGTCATCTAGCATTAAGTATATCTCCCAATGCTATCCCTCCCCCTC  
CCCCACCCACAGCAGTCCCCAGAGTGTGATGTTCCCTTCTGTGTCATGTGATCTCATTGTTCAATTCCCACCTA  
TGAGTGAGAATATCGGTGTTTTGGTTTTTGTCTTGCAATAGTTTACTGAGAATGATGATTCCAATTTTCATCCATGT  
CCCTACAAAGGACATGAACTCATCATTTTTTATGGCCGATAGTATTCCATGGTGCATATGTCACATTTTCTTAATC  
CAGTCTATCGTTGTTGGACATTTGGGTTGGTTCCAAGTCTTTGCTATTGTGAATAATGCCGAATAACATACATGTGC  
ATGTGTCTTTATAGCAGCATGATTTATAGTCTTTGGGTATATACCCAGTAATGGGATGGCTGGGTCAAATGGTATTTT  
TAGTTCTAGATCCCTGAGGAATCGCCACACTGACTTCCACAATGGTTGAAGTAGTTTACAGTCCCACCAACAGTGAAA  
AGTGTTCCTATTTCTCCACATCCTCTCCAGCACCTGTTGTTTCTGACTTTTGAATGATTGCCATTCTACCTGGTGTGA  
GATGGTATCTCATTTGTGGTTTTGATTGCGTTTTCTCTGATGGCCAGTGATGGTGAGCATTTTTTCATGTGTTTTTGGC  
TGCATAAATGTCTCTTTTGAAGTGTCTGTTCTTGCCCTCGCCCACTTTTTGATGGGGTTATTTGTTTTTTCTTG  
TAAATTTGTTGAGTTTATTGTAGATTCTGGATATTAGCCATTGTGTCAGATGAGTAGGTTGCGAAAATTTTCTCCCAT  
TTCTAGGTTGCTGTTCACTCTGATGGTAGTTTCTTTGCTGTGCAGAAGCTCTTTAGTTTAAATTAGATCCCATTTATC  
AATTTTGGCTTTTGTGTCATTGCTTTTGGTGTTTTAGACGTGAAGTCTTGGCCATGCTGTGCTGTAATGGTAATG  
CCTAGGTTTTCTTAGGGTTTTTATGGTTTTAGGTCTAACATGTAGTCTTTAATCCATCTTGAATTAATTTTTGTAT  
AAGGTGTAAGGAAGGGATCCAGTTTCAGCTTTCTAAATATGGCTAGCCAGTTTTCCCAAGAACGTTTATTAATAGGGA  
ATCCTTTCCCATTTGCTTTTCTCAGGTTTGTCAAAGATCAGATAGTTGTAGATATGCGCGCTTATTTCTGAGGGC  
TCTGTTCTGTTCCATTGATCTATATCTGTTTTTGGTACCAGTACCATGCTGTTTTGTTTACTGTAGCCTTGTAGTATA  
GTTTGAAGTCAGGTAGCGTGATGCCCTCAGCTTTGTTCTTTTGGCTTAGGTTTGAAGTGGTGTAGTGGGATGGCAAT  
GTTCCATATGAACCTTTAAAGTAGTTTTTCCAATCTGTGAAGAAAGTCATGGGTAGCTTGTAGTGGGATGGCAAT  
CTTTAAATTACCTTGGGCAATATGGCCATTTTACGATATTGATTCTTCTACCCATGAGCATGGAATGTTCTTCATT  
TGTTTGTATCCTCTTTTATTTCATTGAGCAGTGGTTGTCAGTTCTCTTGAAGAAGTCTTTCATGTCGCTTGTAGTTG  
GATTCCTAGTGTTTTATTCTCTTTGAAGCAATTGTGAATGGGAGTTCACTCATGATTGGCTCTCTGTTTGTCTGTTG  
TTGGTGTATAAGAATGCTTGTGATTTTTGTACATTGATTTTGTATCCTGAGACTTTGCTGAAGTTGCTTATCAGCTTAA  
GGAGATTTTGGGCTGAGACAATGGGGTTTTCTAGATATAACAATCATGTAGTCTGCAACAGGGACAATTTGACTTCCTC  
TTTTCTAATTGAATACCCCTTTATTTCTCTCTGCTAATTCCTCGCCAGTCTTCAACACTATGTTAAATAGG  
AGTGGTGAGAGAGAGCATCCCTGTCTTGTGCCAGTTTTCAAAGGGAATGCTTCCAGTTTTTGGCCATTGATGAT  
TGGCTGTGGGTTTGTATAGATAGCTCTTATTATTTGAAATATGTCCCATCAATACCTAATTTATTGAGAGTTTTTAG  
CATGTAGGTTGTTGAATTTTGTCAAAGGCCCTTTCTGCATCTATTGAGATAATCATGTGGTTTTTGTCTTTGGCTCTG  
TTTATATGCTGGATTACATTTACTGATTTGTGTATATTGAACCAGCCTTGCATCCAGGGATGAAGCCCACTTGATCAT  
GGTGATAAGCTTTTTGATGTGCTGCTGGATTTGGTTTGGCAGTATTTTATTGAGGATTTTGCATCAATGTTTCATCAA  
GGATATTGGTCTAAATTTCTCTTTTGGTTGTGCTCTGCTGCTGCTTGGTATTAGAATGATGCTGGCCTCATAAAT  
GAGTTAGGGAGGATTCCCTCTTTTCTATTGATTGGAATAGTTTTCAGAAGGAATGGTACCAGTTCTCTCTGTACCTCT

Fig. 6.26C

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GGTAGAATTTGGCTGTGAATCCATCTGGTCCTGGACTCTTTTTGTGGTAAGCTATGATTATTGCCACAATTTTCAGAT  
CCTGTTATTGGTCTATTTCAGAGATTCAACTTCTTCTGGTTTAGTCTTGGGAGGGTGTATGTGTCAAGGAATTTATCCA  
TTTCTTCTAGATTTTCTAGTTTATTTGCATAGAGGTGTTTGTAGTATTCTCTGATGGTAGTTGTATTTCTGTGGGATC  
GTTGGTGATATCCCCTTTATCATTTTTATTGCATCTATTGATTCTTCTCTCTTTTTTCTTTATAGTCTTGCTAGC  
GGTCTATCAATTTTGTGATCCTTTCAAAAAACCAGCTCCTGGATTCATTAATTTTGAAGGGTTTTTGTGTCTCTA  
TTTCCTTCAGTTCGTCTCTGATTTTAGTTATTTCTACCTTCTGCTAGCTTTTGAATGTGTTTGTCTTTCTAG  
TTCTTTTACTTGTGATGTTAGGGTGTCAATTTTGGATCTTCTCTGCTTTCTCTTGTGGGCATTTAGTGCTATAAATTTT  
CCTCTACACACTGCTTTGAATGCGTCCCAGAGATTCTGGTATGTTGTGTCTTTGTCTCGTTGGTTTCAAAGAACATCT  
TTATTTCTGCCTTCATTTTCATTATGTACCCAGTAGTCATTTCAGGAGCAGGTTGTTCCGGTTTCCATGTAGTTGAGCGGTT  
TTGAGTGAGATTCTTAATCCTGAGTTCTAATTTGATTGCACGTGGTCTGAGAGATAGTTTGTATAAATTTCTGTTCTT  
TTACATTTGCTGAGGAAAGCTTTACTTCCAAGTAAATGGTCAATTTTGAATAGGTGTGGTGTGGTGTGCTGAAAAAATG  
TATATTCTGTGATTGAGTGGAGAGTTCTGTAGATGCTATTAGGTCTGCTTGGTGCAGAGTTCAGTCTCAATTCCTG  
GGTATCCTTTGTGGCATTTTCTGTCTCGTTGATCTGTCTAATGTTGACAGTGGGGTGTAAAGTCTCCCATTTAATGTG  
TGGAAGTCTAAGTCTCTTTGTAGGTCACTCAGGACTTGCTTTATGAATCTGGGTGCTCCTGCAGGTGCATATATATTTA  
GGATAGTTAGTCTTCTTGTGAATTGATCCCTTTACCATTATGTAATGGCCTTCTTGTCTCTTTGATCTTTGTTGG  
TTTAAAGTCTGTTTTATCAGAGACCAGGATTGCAACCCCTGCCCTTTTTTGTGTTTCCATTTGCTTGGTAGATCTTCCTC  
CATCCTTTTATTTGAGCCTATGTGTGTCTCTGCATGTGAGATGGGTTTCTGAATACAGCACACTGATGGGTGTTGAC  
TCTTTATCCAATTTGCCAGTCTGTGTCTTTAATTGGAGCAATTTAGTCCATTTACATTTAAAGTTAATAGTGTATTG  
TGAATTTGATCTGTCTATTTGATGTTAGCTGGTTATTTTGTCTGTTAGTTGATGTCAGTTTCTTCTAGTCTCGATGGT  
CTTTACATTTTGGCATGATTTTGCAGCGGCTGTGATCCGGTTGTTCTCTTCCATGTTTAGCGCTTCTTTCAGGAGCTCTT  
TTAGGGCAGGCTGGTGGTGACAAAATCTCTCAGCATTTGCTTGTCTGTAAAGGATTTTATTTCTCTTCACTTATGAA  
GCTTAGTTTGGCTGGATATGAAATCTGGGTTGAGAATCTTTTCTTTAAGAAATGTTGAATATTGGCCCCACTCTCTT  
CTGGCTTGTAGGGTTTCTGCCGAGAGATCTGCTGTGTAGTCTGATGGGCTTCCCTTTGAGGGTAACCCGACCTTTCTCTC  
TGGCTGCCCTTAACATTTTTTCTTTCATTTCACTTTGGTGAATCTGACAATATGTGTCTTGGAGTTGCTCTTCTCGA  
GGAGTATCTTGTGGCGTTCTGTGTATTTCCGTAATCTGAACGTTGGCCTGCCCTGCTAGATTGGGGAAATTTCTCTTG  
ATAATATCTGCAGAGTGTGTTTCCAACCTGGTTCATTTCTCCCATCACTTTTCAGGTACACAGTCAGCTGAGCTGATG  
GTCTATTTCATAGTCCCATATTTCTTGGAGGCTTTGCTCGTTCTTTTTTATCTTTTTTCTCTAAACTTTCTCTCTCA  
CTTCATTTTCATTCATTTTCATCTTCCATTGCTGATACCTTTCTTCCAGTTGATCGCATCAGCTCCTGAGGCTTCTGCAT  
TCTTCAGGTAGTTCTTGAGCCTTGGTTTTTTCAGTCCATCAGCTCCTTTAAGCACTTCTCTGTATTGGTTATTCTAGTTA  
TACATTTCTCTAAATTTTTTTTAAAGTTTTTCAACTTCTTTGCCCTTTGGTTTGAATGCTCTCCGCTAGCTCAGAGTAAT  
TGATCGTCTGAAGCCTTCTTCTCTCAGCTCGTCAAAGTCAATCTCCATCCAGCTTTGTTCTGTTGCTGGTGGAGAGCTG  
CGTTCCTTTAGAGGAGGAGAGGCGCTCTGATTTTLAGAGTTTCCAGTTTTTCTGTTCTGTTTTTCCCCATCTTTGTGG  
TTTTATCTACTTTTGGTCTTTGATGATGGTGTATGTACAGATGGGTTTTTGGTGTGGATGCTCTTCTTGTGTTAGTTT  
TCCTTCTAACAGACAGGACCTTCAGCTGCGAGTCTGTGGAGTACCCTGCAGTGTGAGGTGTGAGGCTGCCCTGCTGG  
AGCCTCCAGTTAGGCTGCTCGGGGTCAGGGGTGAGAGACCACTTGAGGAGGCAGTCTGCCAGTTCTCAGATCTCCA  
GCTGCGTGTGGGAGAACCAGTCTCTCTTGAAGCTGTGAGACAGGGACATTTAAGTCTGCAGAGGTTACTGCTGTCT  
TTTTGTTTGTCTGTGCGCTGCCCTGCCCTCAGAGTTGGAGCTACAGAAGCAGCAGGCTCCTTGAGCTGTGGTGGGC  
TCCACCCAGTTGGAGCTTCCCGGCTGCTTTGTTTACCTAAGCAAGCCTGGACAATGGTGGGCGCCCTCCCCAGCCTC  
GCCGCTGCCCTTGAGTTTGTATCTCAGACTGCTGTGCTAGCAATCAGCGAGACTCCGTGGGGTAGGACCTCCAGCCAG  
GTGCGGGATATAATCTCGTGGTGTGCTGTTTTTAAAGCCTCGGAAAGCGAGTATTCGGGTGGGAGTGACCCGAT  
CTCCAGGTGCCATCCGTCACCCCTTTCTTGTATTAGGAAAGGAACTCCCTGACCCCTTGCACTTCCCGAGTGAGGCAA  
TGCCTCGCCTGCTTCCGCTTGTGACGGTGCAGCGCACCCACTGACCTGCGCTACTGTCTGGCACTCCCTAGTGAGAT  
GAACCCAGTACCTCAGATGGAATGCAGAAATCACTGTCTTCTGCGTCTCAGGCTGGGAGCTGTAGACCGGAGCTG  
TTCCTATTCGCCATCTTGGCTCCTCCTGTTGTAAAGATTCAAAAGTTGATAGATTTTAAATCCTTGGAACTGTGCCCT  
TGTATATGTTGAAGAATAGAAAAGTGCCATCTTTCATTATTTTACCAATAGTAATAAAGCACAATTTGTATAGTAAACT  
TGTAATATAGTATATGCTCAATAAATTGTTAATTAATTTTGTGTTTCTTCTAGTGATATATATCACTAAGGGAAT  
TGATACTAATGTCAATTGCATGCATTAATGGTAACATTAATTAATCTTCTTACACATTGGGCAAAAAAAGAAAATACCAGG  
CTGTGAGAACATCTTGGCCAGAAACCTCCCTTCAGCAAAAAGACAAAATGTGAGTGAAGAGAATATGCCTTTGAGAA  
TTGAGAGGGTTGCATTTTGCTTATTATGTATAGAGATTGGCAATTTCCCTTTCAAACTATGACAGTGACACTGATT  
CTGGATGAGCAACCTGCATAATGCTTCAGGGGCACATCTCTTCTTCTAAGGCTGCAGGCTTGGCGATGAGACAGAACAC  
AGCCTCAATTCATCTGCTGTCTATTTATCTGCCAATATAGATAGCAGATCTCTGTGGGTCTTGGACTGCTCAAACGACA  
CAGTATATTTTAGCAACTGAAGGGGAACCACTTGAGATCACTAAAGGTGGAAAACACCTGATGACACCTTCAATCGAAA  
GAAATGAGTATCCAAATCTGAAACATTAGGCCCAAGTACAATGGCTCTAGTGACAGATAAAAAATACTATTTCTAA  
CCCTTATAGAATGAATTTGTTTCAAGAGCTCAAGAAAACCTTTATACATTTATCTTCCACTTTTAAATTAAGAGAT  
TATTTCTGAAATGCTAAAACCTTTTGTGTTTTATTCATGTTTTAGAGGAAAGGAGGAAGAGAAACCACTGTTACTTTCT  
TGATGCTGTACCTGGCACCTGCCCTTGATTGAAGATGAGTTTTGCATGGTGTCTGAACCAAAAAATAACAAGTCTTTAA  
AAATTATTGCTCTAAAACAGCAGATCAAACTACTTTCTTTTTTCTCAGAGGATTACAAAAGTATATTGTTTGGAAAG  
GCAAAGTCAGTGAAGAAAAAGAGGAACGTCCTAAATATTGTTGTTGTCATTATAATGTAGACTTCAGTAAATGA  
GATTATCTCAGGTGTGAATGGAGAAAGGTAGGATGCATGCAGTGTGGAAGCAGCCAGATTCAACACACTAAAATCATTA  
ACACATATGTTTGTGTAGTTGTGTGTAATTTTGGGGGAGAGGAATTTGCTTTAATTTCTCACTCAACCACTT

Fig. 6.26j

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GACCAATAATTGGGAATCATCTCTTTTATCCCTATTTTTGCCCTTGTCTATATGTTATTTTTTTGAGATGTTCTTT  
ATCATAAAGTGCCTTTACGTAGGCAGTATATAAGCAGTATGCAAAATTGAGTCCCATCTCTGGCAATTGATCTCAAAGT  
CCTTTTTTTGTTGTCAAATACCTTTGAATCTGTGCTTCAAACCTCTGCTTGGGTTCACTCAAATCAGTATATTTCTTTC  
CATATGTAGGTCTTTTGATTTTTGTCTAGGTTGACTCTTTCTGAGTTCCCTTTACATCAGAAATTAACATTTTCCT  
AATTATCCAGTCTAGAAATTTTAGTCATCACTACTTTTTCTTCTGAGTTCCCTTTACATCAGAAATTAACATTTTCCT  
AATTAATCCTTTCTTCAAACCTCTACTTCCCTGTCTTTTCTTCTGAGTTCACTACATCAGTCTCCTCATCCAT  
TCATGCCAGGACTTCGACAGCAGATACTAACAGGCATCAACCTCCAGACTCGTTAAATTAATCTACACACTATTTCCA  
GGTGACTTACTGAAAGTCTTCAATTTGATCCTGTCACTCTCCCTTTTCAAGGACTCTTCCAGCAGGTCAAACTCACATATC  
TGCAGGAGCCAGGAGCTATTCAAATGGAGAAGGCAGGGGGATCCTGGGCAAGGAGGGTATAGATATATCCTCACCTGCA  
TGCAGTACTTCTGAGCTCCTCACAGTTGTTATCATGTGAAAATATAGGCCAGGGTTGGCAGGCTTTCTGATTTTTTC  
AAGAGAACAACAGAAATTAGACTTTTAAAAAGTTGATTCAATAAATATGACAAGGTATATTAGGGTTCTCTGGAAGAACA  
GAATTAATGGAAT  
CGTAATCACAACGTTCCACAATAGGCCATCTGTAGGCTGAGAAGCAAGGAGAGCCAGTCCAAAGTTCCAAAACCTGAAGAA  
CTTGGAGTCCAATATTTAGAGAAGGAAGCATCCAGCATGGGAGAAAGATGTAGGCTGGGAGGCTAGGCCAGTCTTTCT  
TTTACATGTTTTCTGCCTGCTTATATTTCTAGCAGCGCTGGCAGCTAATTAGATTGTGCCCACCCAGATTAAGAGTGGGT  
CTGCACACTGACTCAAATGTTAATCTTCTTTGGCAACACCTTCAAGACACACCCAGGATCAATACTTTGTATCCTTCC  
ATCCAATCAAGTTCACTCAGGATTATCAGAGAAGGCATACTATGTTCTGAGCTTTCTTCTGTACTGTAAAAAATAA  
ATACAGCAGTGAAGTGAACAGACAAAATCTACCTTGTGGAGTTTATATTCCAGCTGGGAGTGAAAGATGAAAAATAA  
TTAT  
GATTTTGTGATAAATACCATGAAGAAAAGTGATTAGAGAAGAGGTTAACAAGTGTGTGTGTGGTGGGTGGTGGTGGTGGT  
TAAGTGGTGTAGGAAAGACCTCATTAGAAGGTAGCATGTGAGCAACATGAAGGAGGTACAAAAAGTCTCCTGCCA  
TCATGGAGGGACAGTAAGAAGGTCCTGGTGGCTGGAGTGAAGTAGCAAGTGGAGAATAAGGGAAAAAGTTGGAGATGA  
AACAGAAGGGGACTCAGAGCTCTATTCTTACTAGTGGCTTTGCCTTATTAAACAAAGACCTTTAAACAGATGTTAA  
CAAGATCCCTCTGACTCCTAATTTGGAGATGACTTTAGGGGAATAAGGGAGAAAGAGAGATCAGTGAGAAGCAGAATT  
CTTTTTTTCAGGGTCTTTCTCATTTGTTGTTCTACTACCATCATCCTTTGGACAGACAGGTACTCTTTTAAAGTCAATT  
TGATCTAAATGTGGGTTTTTAAAAAATCCTTTCTTTGTTTAAACAGCTGAGACAAAGCAGGAATTTTAAAGCAACCTT  
TACTGACAACTATGTAGAATCAAAGTAACATGAACTAGATAATTGTTCTATCATAGGAGATATCTTATTCAAATGA  
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AGGGCTCCACAAGACATAGTCACTTCAAGAGATTGAGAATCAAGACAGAGAAGTTAGTCTCCTCTATGCTTACTT  
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CGTATTTTTCAGGGTGGGGAAAGATCATTAAATAACAGTAGTATATATTGTTCTCAGTAAATATTAGTTACCTTT  
TCTTCTCTTGGAGTGACTTTTACCACCTCTGTAACTCATCTAGCCTTATCTAATGGGAGGCCATTTATTTTGGGAT  
GGCATGACTACATAATTTCAAGCTATTTCTTATGTTATTTGGCGCTCTTAAATATCTTCCCTTACCCTCTTCTCATA  
CAAACCTTAAAGTTCTTCTAAGTCACAACAATTTAAGGCTTTTACCTAAGTGAACCGATGTCTTCTTTGCTGT  
ACATTTACATGTCTATAACAATCATTTTTCTTAAATATGAACTCTTGGATATAAAAAATATTAACCTGAAAAATAGT  
AACCCTGATTTGCTCTTTTACTTTAACACCTTTTGTCTTTGTTTATAAATCCACTGTGCAAGCTGTTTATGCAGC  
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GAAGAGAACACTTTAGAAATAACTTCTTGAGAAATTTGGTTTTGGGAAAAATAGTATATCCAAATTAGAGAGCGCCATCTT  
GTGGGCAAGTGAGTATCTCACACAAATAAATACTATTATAAGTTGCAAAAAATAGAATTTCTTCTCTTTTCTTACAA  
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GATTCATGCATACAATGTGTGATGATCAAAATCAGGGTATTTAAGATAACCATCACCTCAAACGATTATTATTTTTTGTG  
TTGGGAACACTTCAGCTCTTCCAGATATTTGAAATATACAATAAATTATTGTTAGCTATAGTCACCTTTCTGTGTAT  
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Fig. 6.262

GAATTCCTAGTGTGTGAGTGTGTGTGTGTGTGTGTGTGTAACACATTTCCTTTATCCATTCACTGTTGATGAACACTTAGT  
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3NSDOCID: <WO\_02074992A2\_1\_>

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GCATTCTGATTGCTCTCAGCTTGACTATTGTTGGTGTGTAGGAATGCTAGTTATTTTTGTCACATTAATTTTCATATC  
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TGGAGGATTCTGTCATCAATGTTTCATCAAGAATATTGGTCTGAGTTTTAAATTTTGTATATTTCTACCAGGTATTTG  
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CTCTTTTCTTCTTTATTAATCTAGCTGGTGGTCTATGTAGTTTATTAATTTTTTCAAAAAAAGAACAACCTCCTGGATTC  
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Fig. 6.265



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AAGGGTTTGTAGCAGAGAAATGGCATACTTTTCAAAGGATCACTCTGGGTGCTCTGTGAAGAAATAGAGAGGAGCAAG  
AGTAGAAGCAGGAAAAATGGTTATGACGCCACTGCAATAGCCTTGAAGGAGACAGTAGTGAATTTGAGGAGGAGTGTG  
GCAGTGGAGATGGCGAGAAGTATCAGATTCTGGCAATGTTTTGAAGAACAGAGCTAATTTGTGTTTGTATGACGGATTTT  
ACATAGAGTGAGAGAAAAAGAGATGAGTCAAAGATAATTCAGGGTTTTTGGCCTGAACAAATGGAATGTGTGTTTT  
TATTTATTGAGCTTGAAGAGTTCAAGGGAGGAGTAGGTTTGTGGTGGGGTGGTTCTGTTTGTGAGCATTTTGTGTTTGT  
AGTCTGTTTGTGGAAGATGCTTGGAGTGTGCCCCATTTCCCTCCACCCACTATAGAGTTCACTGAGGCTATGGCAG  
ACTCAGTCAGTTTCCATCTCAGGCACCTGGGGGCTTTCTGCAGTACAAAGGAGCCTGCTGAGACCGTTTACAGAAATTT

Fig. 6.266



TTTAAACATTCCCAGTGCCAAACACTCCAACATTGAGGGTCCAGAGTTGGTGCTCATATACCCAGGTTCCACATTCTCCA  
GTGGGACAGTCTCTGAGGCATGTGTATATATGGTCCCACAAAAGGTCCCTGGGGAGATTGGGCCCTCTCTGCCCTGCTT  
ATTAATACACACTGTATTAACTTTTCTTCTTTGCTATCCCACTTCTCCATCACCTAACTTTGATTTCTTAGAATCGCC  
TTCCTGCCTCTTCTCCAAATAAACTACGCACTCCAATATTTTGCAGTCTCCCTGGAAGGAATTAAACCTAAGACTATTA  
AATACCCATATGTCAATCTCCAAGAAGGAGATTGATATACTATTCTGAAAACCAGGCCAAAATGTCAAGGATGGAGATAC  
AGTTGGGAGGCGTTAGTCTTTTTCACAAGCCTATTCAAAGCCCATTTGCACAAGCATAGATATGTGTAGATTCTCTACA  
CAGACTTTGTTACCGTCTTGTCTGCCCTCATGTCATCTCTCCACATGAATAACAATGACTACTCATCAATGAATGCTCTGA  
ACTTTCAGCAAAGGCCACAGTAGAATTTCTAGATAGTAGTAGATTGAGAAGTGATGACAATTTGATTGGAAGCTAAGGG  
ATCTTTGGGGACTTGTCTTGAATTTGCATTACATAGAAAGCACATCGTTTTTATGTTTGAYACATATTTATTTGTGGTG  
GGTTTGAAAACCTGTAGCGGTTATGGAGGGGCACCCCAACCATCTTTGGTGTGCGCATGCTTTTAAATTATGAT  
TTGTGCTAAGCCACACATTCTCATTTTACCTAGCTCAGGGTCTAAGCATGTTTTTCATGATGGTTTGGTTAGGAAAG  
GAGTAGCAATGAATGAGCTCCTCAATAAATACATAGCACAGACACTGACAGGCCAAAGTGAAAGTTTGTAACTACTTCCCA  
ATCAATTGTTCAACTGAATGTGAGAAGAAATCATTTTCTCTCTGTTTGTAGTCAGAATAATCACATAAAGCACAACTCT  
TCCTGCATACATTGTATCATATTCCACAGTAATTTACTTTTTTGGCAAGATATCAAAATTTGGTTTTCCTGCTGAG  
CAGTTATCCAGATAATTGTCAAATCAGTGGAAATCATTTTACATGAATAAAGATTTTTTATTTCTAATTAACGTGCTAAATCAA  
GCACACCAAATGTCTCTAATTTCTTATTTACTCAAATGGCAATATTTTTTGTGCTGACTATCATATGAAATTTAGGTTG  
CCTAATGCATTTTCAAATGGCACTCATAAGCATACTAACGTTTTATAAATAAATGTCTCCATATTTTAAAGATGAATGG  
ACAATTTTTGATTTTTTAATRTAGTCCCCAATTTTCAATTTTCAATTTTCAATTTACCGAATGGAGAAACAGCATTCTC  
AGAGCAAAGAGCAAGTTTTCACAAGTCATGGGAACAAACATAGATGCTAATTTCTATTTTAGGAAGTTCTTTTTAAAG  
TATTATCATTAAAGAAGCACAACTCTGTGGAATATTTATGTGCACATTTAATAATAGAGAATTCGGATGTCAAGTCTGTG  
TGTTACTCATACCCATCATGCTATGCCTCTCAAAAGCCTTGGAAAGTTAATCTCAGCTGATGAAGCTAAGCAATGTCTCT  
GGAAGGATATCTGAAGTTTGTGGCTCTTGGGGTGAGGTTACAGTCAAGAAACCTCTCTTCAAGAGGGCGCTGTGCA  
AACAGTACTGCTCTCGTGAAGGAAAATTTGCTTGGCAGACTGGCAGGAAGTGGATTCTTTTACATCTATTAAGTGCTCTG  
CTCTTTCATAAAGGAAAATTTCTTGGCAAACCTGGCAGGAAGTGGATTCTTTTACATCTACTAAGAGCTCTGCTTCTTTCT  
CTCTCTCTGCTTTTTCTTGGCATGCCCTCTTCTTAGGCTCTGTAAGGCAGACTTCTGTCTTCTCTAGTTATGCTTCT  
GCAAACCTGCATCATGCTGATTCTATTAATGATTTGATTTTAAATAATACCATCATAGGTGTTAAATGATGTGTATGCCT  
ATCTGGCTTCTCAGACTTCTCTCTCACTACTTTACATCTCACCAATGTGTAAATATCTATGAGACATCTTTAATTTA  
ATATGATTCAAAGTCTTTACTCTTGACCTTTGTTTGAAGTCTAATCAACTAAAAACCTAAAATCTCTGGTGGGAAAAA  
AAGAACTTGACTACTCTAGTATTTTTTATAACATGATTTCAATTTATTTCTGATTATAAAGTCACTTTTATTTATTGTA  
GAAATATAAACAATTTATGGAATAAATAAATTTAAAAACATCTATCATTTCTATTACCAGAAATACTTGATCAACATTTT  
GGTGCAATATTTTAAATGAATGATTTTTTAAATGAGAAATGCTTTTCAGGAGTAATTAGATTCTACTTAGTATTGACAAT  
TTATAATATGCTTTTAAACAAAGTATTAACATTAACCTTTTTTGGAAAAATGCCACTTCTGCTACTTATAGCTGTATTGG  
CTATTTTCTCAGAACTTCTGCTGTAATGAGTTTATACCTAGAGTTGCAAATACACGTTCTTTGAATGTAAGTGTGAGGAGTC  
GATAGTCTGAATCTGAGATTTTCCACAGCTCTTGGAGCACCTGAGAACACACTAGCTTCTTCCACGATTCTGCAGTACT  
TGCTCCTTCTTGATAGGATGCCTTTGTAAGCGTACAACCTCCAAACATGGGCTGAGTGTTTCAGTAATCATTTTGTGTTGAG  
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AATTTTTTCTCATTATAGAAAAGTACAAATGTCTTGTTTCATGACAAAACAAGGCCATAACATTTATATAATGTTTCATTTAA  
ATATATCAAAGAAAAACAAATAATAAAACCCACAGAAAACCCAAAAACAACCTCACCTATTAACACATCTCTTGATTTA  
TAAATATTATAGTTTAGTTTGTAACAATATCAGTAACCTGTGGAAGCTCCCAATTATCTCATTTCCCAAGTGCTTGACTGA  
CTCATAACTTACCAACAATTTTCTTATTTTCAGAGAATCCAAAAACATATTACCTAGGACTAACCTGGAATAAAACCTT  
ATGGTTGATAGCTTTTATCAATTAAATGGGTATTGATTTKGATAACTCATAATCTTGAGCATATCTTTAGATTTTACTTT  
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ATTGCTCTTCTGTCAGAAAGTCCACCCTCAAAATAGACTCCAGAAGAAAACATAGAGACTTATAACTTAGGTTAAACA  
TAGGCACAATCCTTAATAGTATTCCAGTGAGTCTTACCTGAATAATTGCTCACCTAATATGATAATCACCTGTTAAGAA  
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ACAGATCTTATATGCTCTATCAAGTTTATTTTTAGACATCCCTAATTCAGTCAATCTGAGACTATTCCAGGACTGATT  
GCCCTACTAAGGCATGCTTATTTTTTTCTTTATGTGTATAAGAAGGATTCAAAGGGACCGTTTGTGAGTTTAAATGTGT  
GAGCACTACTGATATGTTTTATTGAGAAAAAGCTTACTGCCACAGATCACAGAGATATTTTCCGAGGTAAGATTCTTG  
CTGGTTTGCAAGTTTTGTAAGGAGGCCAGGACCCATCTGTGATCCCGCAGCCAGGAGCCCTATTTAGACCCACAC  
TGGGCTGAAATAGAAACTTCTGTACAAATGTATCTCTCTGTGCTCTTTCCACTTTAACAGAATAGAAAAGAAATTGACTG  
GTTGAGCCCAAATATTTCCCCCAGGCCAGWGTTACAACTGGCGTTTACCACAAAAATAACTCATTTGATATGTTTTTAA  
TGTTGATGATCTGAAAAATCATCTTCTTGTTTTTGTTTTGTTTTGTTTTTAGAGATAGGGTCTTACTCTGTGAGCCA  
GGCTGGAGTGCTGGAGTTCAGTGGCACACTCACAACTCACTGCAGCCTCGATTCCAGGTTTCAGGTGATTCTCCACCT  
CGGCTCCTCAAGTAGCTAGGACCCAGGCATGCACCACCATGCCTGGCTAACCTTTCTCTTTTTTGTAGAGATGGGATC  
TAGCCATGTTTCCCAGGCTGGTCTCCAACCTCCTGGGCTCAAGAGATCTGTCCGCTTGGCCTCCCAAAGTGTCTGGGAT  
ACAGGCATGAGCTTACACTGGCTACCTCTCTTCTTAATTATATACATTTTTTCTTAAATAAGAGCTCATGTTATTTTT  
TATTTCTATAAATATTTATATATCTCTCTCTCTTCTTATTGCCTGATACCTTTAAATAAACCTAAGCCAGTCAAATTTG  
TATTACCTTTGAGTTTCAGTTTGTGGTTTCACTCAGCCCTAAGTTCTCTTTGGGCATGAATTGTTTTCACCATTGACTAC

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TAGCAGGCAGCTGGCATAGCCTGGGACATGTGAGGTGATGCTAAACATGCATTTTGTGAGTAGAAGGAAGGAAGAAAGGA  
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AGGAAGGGAGGCTGGTTGGTTTGATTAGCTGTTGAACAAATTCATATAGAAAGTAGCTTACTAGTCTATATCTTTTA  
GCTCTGTTTATTTCAAAGCTTTTGTGTGTTTTGTTAGGGTCACCTATAGAATATTTAGAAAAATCTGCTGCCTCATG  
CATTTACCATCCAGTGCCCTGGTGAGACCTAAAAGCCCATAGTTATAATTTTGTTCCTTGACCAAAGTTTGTTTTATT  
TTCAAATATAAATTCAATCCCTTAAGACTCACCTATAGCATATATATCAAACAAAAACAGTCAAATTTAACTCAGAAT  
TTTGCTGGATAAATGATTTTACTGGATATCATCTGACCAATGAAATAACAATTGTGTGTTCTCAAATTTACTTCTACAT  
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TTCATCAAGGCCCCATTATTTAGCACTTTCCAACTTGGGAAGGTCACTTAACCTCACTGAACCAGTAGAAATAAAATT  
AGTGGTAACACTGAAAGCAAAAACAGAACCAAGTCCAATTGTCTTATTAATAATAGCCTAATTGTGTAAATGTCTGTTA  
TAAATTTCTTAGCTGGTTCTGAGAGATAGCTAGTAAATGGCACCCTAAGTTTATATATTCTGTTACAAAACAAAAACA  
AATAACAACAATAAGCTGTTTTCTTTTGTGTTACTCAAACATCTGGATTTCTATTGTAGCCCTAGCACATTGTTTACC  
TTTGGTTGGATGGACTGAAAAGTGTGTGATTTTTCTCTATGTAGAATATTCAGAGGGAAAGTGCAGGGCAGTGCACA  
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TTGAACCCACTCAGCCCCCTACTTGCAGCCTCAGTCCCACCCAGGCTCACAGGCCAATTTTGTCTCTGGAATTAGGAATT  
GAAAGATCTCAGGTAAGCCAGCCACAATGGAGACAAGATTTAGAGATAAGCAAACTGACTTGGACTCACATGTCTGTCT  
ATATATTACCTCTGTGGTGTAGCCAAGTTCCTTAACCTCTATGAGTCTCAGATTTCTCATCTATAAAGTGGTGATAAT  
AATGTCTGCTCGTGAGTTGGAAGATTAAAGTAACATGTAGATCTTATACCTGACACCAATTGTTTTCTGTGAAAGTTT  
AAAACCTCTCTTATGATTTAATTCTTCAAGGAAGGTGACCTGACCTTTTTCTCTGATTTTACTTATCTTACAGGCA  
TGTATTGGTTAAGATATACATTTTGCAATTAAGAGGGACCTCAATTTTAACTCAGATCTGCTACTCATTTGGCTGTATG  
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ACAGATAAATTATTATGAGGATAATATATAGTATACCCTAAAATTTCTGTGCAGAGTCTTCAGAACACTTTCTATGTTAGT  
TACCCTATTCACTCCTCTCAAAGCTCTTTGCAATGGCTCTCTCTCAAATGAGAACCAATGGATAAGACATTATAACT  
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GTTAACC CGACATTATGGTGATGTTTTGGTTCAAACTCATTCAGTGCACAGGAAGTGTCCAAGTAAGGAAGGGTCTG  
AGGATGACAGGTACTCAGGAATGGGAAAGTTTATGACTGTTGGCTCCAACAAATGGATAACCCAGATTAGCAAGATATT  
GAACAGTCACGGAAAAATCCACAGCACCAAAATTTAGCACATGAGATTTTATTTAGGGATTCTTGGTATTGGGGTCT  
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ACCTTCAAGATATAACAGCTAATATTTTATTCTTACACACATGGGATATAAAGATTTCAAATAGAGAAAGTGTATCT  
ATCAAACTGAGGACTGATATTCTTTTGAACCTGATAAARTGGTATGCCTATTTACCATGCTCATGAAGTAACCAATT  
GGCAATTTTTAGAAGCTTAAAGATGTTTCTAACAGTATAAAATAGTTTTCTACCTCTCCCAAGCTTACAAACATCA  
GTAGTGTGTGCCATAAATTTTGTCCAGTTTTCAGAATGTTTTATATAAATGCTTATTTCAGCCCTCTCCAAACTCT  
TTGCAATGGCTCTCAAATGAGAACCAATGGGTAAGACACTGAACTCAGCAAGGTGAGGCAACAATCTTCAAGGTGAC  
ATGGCAAGTTCAATGGCATAACTGTGACTCTAATCTCTAATCCCCTATACAGTGTGCTGCCCTGAAAACCTTGCCCAATGGTA  
TTTTGATTAAAAAATTAATTAATCAATCAAAATAGGAAAAAGAACTAAATAAGCCCTACCTAAATACCTGTCTGAA  
ATTTCTGCCCTATTTAGGCACATATAAGAATATAATGTAAATGCTCCATCTTATTTTAAAGTGCCTGAAAATATTG  
GTTGTCCATTTATTAAACAAACATAATTGTGGTTTTATGTCTCTAGACTGTTTGCTAAGCACTGAGTACCCAGAGGG  
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CTGTATTCATGAGTAGAATATTAAATAGAAAGATTTTATGACTTTTAAATCTTATATACAGAGAATTGAACAAGA  
CAATCAGTGACACCAGAAGACTTTTACACACTTGTGTAGAAAATTGTGTCAAATTATTTATTCAAATGATTAGTCTACA  
TTGATTTCAAGATTTTAAAGAATTGAGTCTAGAAATATTTTTTGAATAGTTAGAAAAATCTTAGGAACCTGTCTCAG  
TCATTTAGTAGATATTCAATAAACATAAAATTTATTTCTTTTCTTCCATTTCTTCTCCTCCATGATTTCTTTCTTCAA  
TCCCATTTATCCAAGTAGGCTTTATCCAACAAAGCTTTAGAAGGAGCTTTGTTAGTTTAGTGAATAGAAAAGCTTGACT  
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TTCACAATCATAGTCATATTGATTTTTTATCATTATATTTAAGCATGCCTCTTATTGATTGTTTTAGTCTATATCCTGA  
TTTTAGCTCTTTAATTACAGTTTGTGTCTGTTTGTGCTCTGGGTCAATATAGTAATGGATGCAATTGTAGAAGCTTA  
AAACACAGAGCATGCTTTCCAGTGTTCTTAAGACCATGGGTACCTTCAATCTGTAAATGTTTTACTGTTGCCAAGT  
CTTAAATAATTGTCTCCCATTTCAAGACATGGAATAATTGACCTTTTCRATCAAGTAGACTCATATAAGGTTTAGAATG  
AATATTTGAAAGCAATTCAAAGAAAATTTGGTATTATTTGCAACACTTCCATTTGAGAAATAACTTATAGTTGATT  
TTGATAAGTAATGTAATAAAATCATTTTTTTACATTACTTGTACTGAATGGATATTAGTTTTAAGGAGTACACAAGCC  
CCGTTATCAAAGTGCCTTTTGTCACTCTTTTGAATGYATCATTTCTGAAGATAGAATTACAACGACACCTCATCAG  
AAGTAGATGGTAAATAACAGTCTGTTATTTGCTTCCRCATTAACCTTCTGCTGGCTTTGAGTCTGTAACCAGAGACTATT  
TCAAAATACAGCACTATCTGAAACCCACTATCTGCCTGCTCTGGTTTCTGAAAGCAATGTCTTTCAACCTAACGCAAC  
CCCACTGATGTAAGTCTTATTCTCTGAAGTTCAGCTCAACCTCGTCTCTCCGTATGCCTGTTAACTAGAGACTTG

Fig. 6.262

ATGCGCAAGTAATTGAATGCCATATGTGGGATTACGTTTAACTTTATCCCACTCTCAAAATTTGGGAGTTTCATTTTTATTCTA  
TAGTAGCTATCTCCTATAAAGGAAATTTCTGAGTTTCTGTGTGAGACACCGAAACCCAAATTTGCCATTTGTAAACATCTG  
GAATCTTTGGAACCAAAATCCCAGAAATATCAAGAGGCAAAAAMGATGCCTTATTTTAGAGCTCTGCAGAACATAAGAGC  
TAAGTTATTGGCAGGAGACGGGCACTTTGCTGATACTTTAGTGGGGTTAGGACTTACATGGATAACAATTGGATTGGAG  
CAATGTTTAGATTTCGGAATCTGGTTTTCCTAGGCACATATAAAATAGATGTGCACAACTGTAAACATAATAATTTGT  
CTCAGGGATGGAACATCTCTCTTGTATTTGAATCATGCTTTTACTAAATTTCTATGGAAAAATAACGCTTAATAAAT  
TGACAGTAATTAGAATGTTTCAAAGATGTCCTTTGTTGCTTTTATACTCTTTGATACCCATGAAGTAAAAATATAAA  
CAGCTTGTTGTATTATAAAATGCTAGTAAAGATTTCATCTAGAAAAATCATTTTATTTAATTTCTTATTTTTTCCAAATGT  
CTAAATTTCTCATGTCTGTGAAATATTAGCCAGTTCTTCAAAAAACAATATTGATATTTCTATTTGAAATCAAGGCTTAAT  
TTTGCTCATGATTAATCTCAGAAATAAGTAGCTTATTTCTATGACCTTACTGAGACCTGGTAACCTAAGAAGGATTATG  
TGTAAGTGTGTGGAAGAAATGAAAAGGAGGCGGTAAGTAATTAATTAAGAAAAAATAATATTAATATTGACAGACACT  
CTTGCTGTCTGTAAGTATTCACACTAGGAAAAATGAAGCAGAGTTTCAATTTTCTTGTTTCATAATTTTCACATTTACAGT  
TCCATTGTTTATCTTGCTTAACTGTTCTAGATGACTGCCTTTACAAAAGCAGGGGGAAAAAGAGGAATAAGTAATGTTTCT  
ACAGTAATTGAAAAAGACAAGATTAGTTCTCTCTTCTGACATTTTAGAAAAAGTTGGACATTTCCCTAGCAGATTTTCT  
TCTAGATTATTCGTATGTCTTGAGTCTTATCAATTAGATATTCATTAATAATTTGAATATCCCTTTAAAAAGGTAAATTT  
GTAAGCAAAGGCAGTTAATTATTTGTGAAAAATGTATACTGCTGGCTTTAGCCTGAATACAAAGATAGGGTTTATCTTGC  
TATCAGTAAAAATTGGGATAACAATGAAAAATTTTTTCTGCTTCCAAAGTCGTATACATAAACTGTAGCTTTTATTAGAA  
ATCAGTGATGTCTGTTTACCTACAAAAATTTAAACACCAGTGGACAAAATGAGAGCTTTGTGTTGCTTGGAGGGTGAAA  
AAAGTCCATCTTTGCCAGCAACATCCCTTCTACTCTTCTGCTTGTCTTTGTGGCCTCCCTCCCCCTCCCTTTTCACACCA  
AGCCACCTCACCCACCAGCTGTTAGGGACTCCTCCCCTCTTTACGCAGATCACCGATTATCTTACACTGTCTGGCTTT  
AGTCTCAGATGAAGACATTCTAATAAGCAACCAAGTTTTCAGTCTAGTCTTAACCTGCGAGGAATGTGTGCATTTCTCT  
AAGAGCTCCGCAAAATGGAATTAATAGTTTGAAGAATAAATGATATAATGTGGTCATTCTACACACAGCAAGGGCAG  
ATTGGCATCAGTGTAAGCACCTTTTCTAGTCTTCTTTGAGAACACCAGGAAAGTGGCTACCTGTTTGTCTCATGCGAAA  
TTTGGATCTCTATACAAAAGCAAAAAGACAGTTTGTGAAGCGTTACAATATTGCAAGTTGATTACAGRGAGAATGTGTTG  
TGTTTATTTTTGAACTCTCTGCTCTCCAAAGTTGCTGCTGTTCAGGGCAGTTTCTACTCACCCACTTTCTTTGAGCTC  
ATGTCTGATAAGAAAGAGGTGAACTGTAAAAACCTTTTCTATTACTCGTCTCCAAAGCTGATATGAAACCTGTAGCAT  
TCTTAAGAACCCTGGTGTCTGGATGCTGTTGTGAAAAACAAGCATAATGTTTAATGTCTTGAGCTTTTATTGAAATTA  
TATGAATATTCAAGACTCCCTTGGTGTACAAGAGACAGATTGAGCTTTAGAGGTCTCAAAATTTGCAGATATGGTGATG  
TCTACTGAGTCTCAACTCTTGGTCAATTTTGTCCAGTTTCAGAGAGGGTTAAATTTCACTCTTTGGGCACCTGAAAGCCTCTCT  
AATCTTATCTCGAAGAAGTGGCGCTCTCCCTTGGTTTACAGTTGAGGTCAACCCGCGGGCAGTGTTTGGATACAGACTG  
ATGAAATTTATGCTGCATTGTTAAACATTGAATACCAGTCAAGTGGTGAGGACCGATGACGGCACTAGGGTCCTTTGACTCC  
TTGGGTACAATTTCTTGAAATAGATGCTTTCCCAAATGTCTGGACTCATAAAATATATGAAGGATTCTATTTGGCTT  
TCATCATTTATTTAATTTGAAAGAAAGTTGTTTAAACAGATTTATCAGAGTTAAGAAATGTTTCTAGGGAATAGAAAT  
GGACAAGATAAATTGATCTTTGTTGTGAGAGTCATGCATTGTAATTCACCTCTTAAGGTGACGCAGCATCTCCTTGAGGG  
CAAAGCTGCCAAAAGTTCTGAAAGTGATCTGCCTGTTTTTTTTTCTCACACTGACTTTTAGAGAGGCGCTGGTATTTTC  
AAGACAGTAATAAATCCTGTTTACATCTCTGTGGAAGTTGGCTAGAAGATATATCCATCTCTTTTAAAGAGAAGTTGAAAT  
AAGGAAAAATTAGTTGGCAGTTAGCTGTGTGTGAAATTTAGTAATCTTTGTGATGASCCAGTACATAGGCATGTATTTT  
TTAAATTTTTTTAACGAAGCCCTGTGGGTTTACATTTTTTTAAAGTTTACACTGATATAAAGGTTTACCCACTTCAATCA  
CACCTTTTGTGTGTGTGTCATGCGTGTGTGTGTGTGTTGTGCTTTTCAGGAGTGGCATGTGACTATGCTGTTTAAATCAGGG  
CTATATTTAAAAACAAATTTTCGAGGGAGTGTTTCTCACGTTAATTATGAGATAAGGCCTGAGTGAAGCAAACTCTGTG  
GCAAAGGCCAAGTGTCTATGCAGCAGGAAGTCTGGCCATCCCTTCCAGCCCTGCCTCAGCCAGCCTGCCATCTCTCTGT  
CAGCGCATACCACTGCACAAAGGAAATGCCCTCACTCAGCTACAAGTGCCCTCCTGCTCCGTGCGGGGCCCTCAGGGCCCC  
AGAGCCCCGACCAGCATCTGACTTCTCGTGGTTTCTGGGGATCTGGCATCGTCTCTTAAAAATGGCTTTTGTTTGGGAT  
CCTCTGGGAGCCAGCGTGCCAGGACCATACAAGAGCCAAATCAAGATTGCGTTTCTCAAAGTCCCTACAGGTATTACT  
CTTTTCTTTTGTAGCTAGGAAGAAATGTTTAACTGCCTTTAGGCCCTTGCAAAATAGCCTTTTGCCCTATGTTGACCTT  
CTAACTCCTAATGCTTGTAAATTTGACAATATATTAATAAGAGCCAAGAAGATGATGTAAACCTTGAAATAGGGGTAT  
GTAGGTACGTGCAGAAAGTTGAAGGAAGTTGACTAACTTTAAAGCTAATTTCTGAGAGTTAAATGGCAAACTTAACAAG  
CATTCATATTACTGCCACCTGAAAAACAGTGTATTAACTTGTCTAATGGCTTAATACAGTCAACTCTAAATGTTAGGGA  
AGGGTTCTTGTGTTGACCAACAAAAAAACACTACATTATTCTTCATAAGTGTTTCAGGGCACATGCACATGAAAAATG  
GAAACTAATGCTGTTTCAGGTAGTAATTCAGTGTTCATCTTGCCAGCMGAATTACATGTCTATGAATTCAAACTAAATA  
TTTTAATAATCTTTTGTGTTCTGGAAGTCATATTAATAAATCTTGACCTCATGACTCTACTAACTCAATGACTGTTTT  
ACAACAAAATCAGCTTATTTTAAACCAATAACTGGAAGGAAAGAAACACTTAAAAAATAATGGATTTCTTCTCTCAT  
TGAGTATTCTAGGTGTTAATAAAGAGAAGATTGATTATCTTTATTATTGTTTGAAGAAAGAAACCTTTTCTGTTTTGA  
TTGATTACAATCTATAGCACTGAAAGGTATCTATTTAATCAATAGTAAATAGAAGTGACATTGTTTGCAAAATTTTGA  
TATAAGGTCTTTCTTATTTAGACCAAATGCAGCACATCTGGAAGCTGCCAAGCCTATGTAGAAATATATATTAACTG  
AATTAATAATGTGTTCTGATTTGCCTGCATATAAAACATTCAAAAGTTTGAATTAATAAATTTAAGGATTAATTTAT  
GCTTTAGACACTAAAGAAAGATAATGTCTTGAATTTTTAGGGAACATATAAAATCAGAGAAATCAAAATTTAAAAATTTT  
GTATAACAATGCAATAAGCAAACTTTGGCAAGAGGTAATAATAATTGGCAGCTAAAGGTAATAGGATTAATCACTCAATTA  
TTTTTATTTTCAAAATAAAATAATGATTATTTGTTATGTTTGTGTTACAGCTATAAAATTTAGTTGAAATTTTAAATTA  
ATGCTTCTCTATGTGCTTTGCATTTTGTAAATGTGATTCTCATGCTTATGTTATGCTTAATTTGTACATTAATTTAGTTGAAATTTTAAATTA

Fig. 6.269.

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CATCAATGATTGCTAACATTACTGTGCATATTTCCAACATATGGTGGCTTCTAGGCTCTCTTCATCACTAGATCTGAT  
AACAGCTCCTTAATATCATAAATCTCCAGCTGCTGAATAAAGTAAAGCAATAGCTTGATTGACTTAATGAATTTGAGA  
AATCTCACGAAATGCAGAGTTTAAGCTCTTCTGTGTAGTTTGCAAAATATATTATAAACCTTGCCTTCTCAATTTGGCAA  
AGATATTTTATTTTGTAGGTGTATGGTATTGTAACAATTTAAAGCTATATGATAAATATATTTTTTCAAGGTTCCCTT  
GGTCAAGTTCTGACCCTTTCCAAAATATAAGCATTAGCAGCTAAGAATGACTTTTTCATGTAYTTGAATACCTCACATC  
TGTAATTTTAAACAAGTTTTCATTTGTAACAAGTTTAAGAGGTGAGCAATGACATCTCAAATATCCATCATGAGTCAGTTTC  
CTTCGGAAGCTTGAGAGGCTCAGTCCTTCTTACTTCTCTTAATTTGAATATACARTTTCCACAGAATAATTAATT  
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CGATAATGTTTTATTGGCATAGCCAACCTTGATATGATCATATCTATCATAGTTGAATTGAGTGAAGGGTTAGGGAGG  
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ACAACTACTGACAATAATGAAAAAGGTACATATCATATAAATTTAAATTTTATCATACCATAAATACCTCAAATGCA  
CCATGAGTCACTCTATATATATACAGACACATATACAGCCACACACAGGCACATGCACGCAGCTAAATGCTATAAT  
TATCTTCTGAAGAGCATAGTTTTATTGCATAGCATTCTTGAATTTAAAGGTGTTAAACTATTTGATGTAAACATGTAAA  
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ACTTAAGCTTATCTTGACCTTTAAGAGGCTTTGGATCTGATTCCATTATTGAAGCAACTGAAAGAACTGGACATTGGAC  
AACATTTCTTCATTGAATTTCTCCCTTATAATTTTTTTTATGAGCAATATTTTTTATCTGTAAAATCTTCAAATGTGC  
CTATTGTAGTGTCAATTTTCTTTGGCTATTGAATGGATAAATGCATGCTACTGGGGGTACACTTAGCTTTAACTGGA  
ATATTTTCTTGGCATGGCTTTTGGCTGCCTGGTAATATTCAGGCTAAAGGAAAGCCAGGTGTACAAGATATGAATTC  
AATTAGTGTCTGATTTTGTAAAGTAATAGCAAAATCATATACATTTAATGAGTGTGTGACTTTGAGAAATACAATCTGAA  
ACAGTTTTTACAATGCTCAAAATAGATGTGAAAGTTTTTCAGCTGTGACAATTTTTTATCTTATGTGGGTGAAATGCAAT  
TTTATAAGAAAAGATTAAATATATAGCTTATTAAGTTTGATTGAGGCAGAAAGAAAGGATTGAAAGAGAAAAGAAAGAGGGA  
GAGGGAAGGAAAGGCAGGGGAGAGGAGGGGAGCAGGGCCGTGGAAGGAGGAGTGAGGAAGAGAAAAGAGAGAAAGCAG  
AGGCTTACATAATAAGGAAGGTACTTTTCTCTGTGAGCCCAAGAGATTGCCAACCATGTTTTCAGTAATGGGATCA  
GTGTTAGCATTTAGGGCACCACCTTACAAAGATGAGTACTAATTTTTGAGGGCAAGGTGCTGATTTATCTGCCTAGGTTCTG  
GCACATGATTTTAAAGATTACCTAATTAATCTTTAGAGCAACGCCCTCCCAAGTATTATAGAGAAGAAAGAGGAGAATG  
ATGTGCTCAAGAAAACAATGTGGAGAAGTTTATATTGTTGTTTAAACATAGTACCTAAAAAATAAATGGGAAAAA  
ACGATCTGGGAAGTAAAGAAAGAATCAAGGAGCAAGATTTAGCAAGCCTGTGGACCCTGACAACCTCAAATAAGAGAAC  
ACTAGGGAATTTTGTGATTTAAATATATTATTGCTTAAACTACAGTAGTGTTCAGGAACTTTAAATAGAAAATTA  
CTCTTCTTGAGATGATTTCTGTCTTCCAAAGAGAACAAATCACAAGGATGTTAAAGGAACATTTTATGTGACAAGTTTG  
GGGTAGGTACTATGTAAATAGAAAGAGAAAGTCACTCAAGGTACATTTGAATGTAGGGCAGAGATTATCCATAGCATTTC  
CACAGGCCAGAAACAGAAAGTGTCTTCTAGTTTTCTTGCCCTTTATAGTAATAGGGGTCATGGGATAGAAATTTCTCAGA  
AAATCTCAAATCTCATTTTTGCAATTTGTTTCAACATCTTTTCTTCCAGCATTTTAGCAGAGCTGCCAAACAGGTG  
ATTAATTAATACATATGTGCTGTGCTGCTACCTCGTGTAGAAGGTCTAATGAGTAAATTTATTTGATATGACATAGACT  
GAACAGTAGAAGGAAGGATTAATGACAGTCAGATCAACAAACAAAGTACAAATGGTATCTGGGCTATGAAAAGATAAA  
GCAATATTTGCCCAACAAAGAAGATCTAGATATCCCTAAATTACCTCCTATATTATTAGGAAGTAAAGACCAAACTAC  
AACTTTGATCTGGAATTTGTATAGTAGCTGATATGAACAGGGATCATAGGAGAGTGTGGTCTCATAGCTACTCTTTGCT  
ACTACCAAAACCTGAGTGGTAGCATCAGTGATTGCCCAACCAACTGCACAATTTCCATTAGAAAAAGCTGTCTCAA  
ACCCATCTTTAGAAAGGAAGTGAATGCCACCAGTGAATCAATACACTGGGATGTAACCTTTCTGCATACCCCAAGAATA  
CCTCCTGTGCTAGCACTTTTTAGTTTTCAAGCTTTTCAGATGTAAACAGATGTGACAGCTGTTGTTTTTAGTGTGCC  
ACAGCTCATCTACCTTAATTTCTTAGGGTAAGTGAAGAAAGATGAGTGAATAGTATCAAATAAGAGAAGAAAGAAATGA  
AGGTTTCAGGGACTAGAGACCACACATATATGTGGTTAGAAAGTCCAAAGTAAGAACAGTAGAGCTAGTTTGTATTGGAC  
ACTTACTATGCACCAGGAACCATTTCCCAATCCCATACATGCATTAGCTCATGCATGTCTCTCCAAACAGCCTCGGG  
AGGTGGATCTAGCATTACCTTTATCTTACAAATGAGGAAACCAGGCAGAGCAAGTTTAAAGAACTGCACAGGTGTGAA  
TTCTGGAAGTCTGTGTTAGAACCAGGACTCCTGGTCCCTCTCCACCTCCAGCTTCTCACCAGATCCTATTATCAGCA  
CACAAGGAAAAAATTCATAATGAGAGGTATTGTTCTAACAGATGTACTATCTTCTCTACTTAACTCTGAATTTTTTC  
TCTGAAGACAGAACACCACGTAAATTTGTTATAGAATAGGGCTTAGTAATCAGTTAAATATAAACTTGTAAATAATAT  
CTAAACTGTCTCTAACCTAATTGATGTTGGTTTTAAAGAAATGCTAAGCAAAAGCATCAAAATAGAGGTATTTTTATAT  
TAAAAAGAAGAAAAAGGAAAAATGAATCCGTTATTTTATATTGTCTGCTTCTGCCCTCTGGCTTTGCTTCATGGGC  
TTCCATCTGGCTCATTTTCATCTGGCCAAAAACATTGGTCATGTGGTTGTATTTTACTGCCAAATATTACTCCTTGGCCA  
GCTGTTTCAGAGGAGCCAGAAGATTCTCTGAGCTMGAGAGGTCAACTCCATCCTGTGTCTATGCTATTTATTCTACTGGC  
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TATAGACAACATTTATATCTAAGAATAACAATACTACTAACAACCATTTGCACATTGTAGGAAGAGGTAGCATGGTATAG  
GAGGAGAATTTGGCTCTAGAGCCAAACAGACCCAGCTTCAGTCCAACTCTGCTGCTTTCTTGATTGGGCAGGTTTCC  
TAACCTCTCTGAGCCATTTCCATGTACATAAAATAGAAAATTAATAATCTACTTCATAAGGTCGTTGTGCAGATTAGAT  
GAAAGCATGTACGTGAATGCAGGACTACCTGCCAACTCTTTCATAGCATTTCCTCAAGTCTTCACTAACATTTACAAAT  
TTTGTGAAGCTTCTTTTGTGAAATACATTTTTCAGATAAACTATCATCATTGGTACCCTCTTGGTTCACAGAATAGTACA  
ATAGAGCTGGCTTATAAATGGTTACCTTATAAGCAACTTGCACATACAACCCAGGCTCACCTTGGAAATGTAGTGTGCA  
GGAATGATTGACAGCTGGCTAGCTCTACAGCCCACTGCTGCTGAGGTTACATTTTACATTATCACTTATAGCTATG  
AGACTTTGGGCAAGTTACTTCATGTGCCTCAGTTTCTCATTGTAAATGGAGTATTATGAGGATTAAAGTGTGTTAGC

Fig. 6.274

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CATGTAAAGTGCCTGGCACATAGACAACACTAAATAAATGTCAGCTATTATTAATAATAGAATGTAAGCTCCACATGG  
CAGCAATTTTTGTCTTTTTTCCACCTTTGTATGGCCAGTGCCTGGAAGAGTGTGTGGTACATATTAGGTGCTTGGCGT  
TTGTGTATTGAATGAATGAACCTATTAGCAAATGTGTTCCGATTTCATGGCAAGTGTGAGGATACTCTGCTTCTTTTTGC  
CACATTCATGGGAAGAGGGGGTTAGAGCTGAAGGAACCTGATGGTTTCATTGTTCAAACTCATTGTCTTACATTGAAG  
AGCTTGAAGACCTTGAAAGGCCCCAGGGTCATGCACTTTGATAGCGGCTGGTCAGAGCTAGAACCCTGGCTCTGTGTG  
CTTCTGTGAAAATCTTTGTTCCAATGTCCCACCCCTCACTTCAATACATATGCCATCTAATTCARTGCTTTTCAGTAAGG  
CAGCAAAATGAATGAATGATTAGAGCACACTTCTGTCAGACAGGAGAGTGTATAAGAGCCATAATTGGGCAATGACCA  
TGGAAGGACAGGTTTCTGAATAAGAGAAAGACTTATCCAAGTAAATATGTTTTCAGACATTTTACTTTACAAGTCTAAAA  
ATCACTTGCTACAACAGCTACAATAGGGTTTTTGTAAAGGAAGTACCCTTTGTAAACAACATTTTTTGTAGAATGCATTA  
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AAACAGAGATAGAGAGGGGAGATACAGTTTGAGTGTGTTTCTGTATTATCATGACAGCACATGGAACCAACCAAGGCAGAG  
AAGATTACAAACTCTGCAATAAATAAAGGATTTGGTTTTTATAAGGTGGCTGCAGGCTACGGACCAGCACAGAGCTC  
TGGCAAAATGTGGAATGCCAGGAGATGTACAAAAAATCAAGGTGACAAAAGAAGAAAAGACACTCCAAACTGCCAAGGG  
TTTATAATCATGCTGTGGATATTTCTGATCATCAGTGTGTTAATGGTTTTTCACTATAGTTAAAACTATACCATTTTTGA  
ATGGGTAATAGGTATGAATATTTATGCTTAATTAGTAGTTTTATAAAATTTATACATTTTATTTTCAATATGTTGATTTT  
ATGATTTTCAACGAGTGGCATTGTCCTTAAGTCATGAAGTGGATGAGCCCCCATCAAGTGATTTTAAAGAGACAGTACC  
TTGACTGAGCAGCTGGATCAAAGCCTGTCTGATCTGGGACAGACAAATAAGGAATACTTCTTACAAAAGAGGAAGCATT  
CAATTTCTATACACTTTACCTTGGTACTCCTTGTCTGAGGAGCTCAGCTTCTATCATGTTCTTTTGGCAGCTCATATAC  
CCACCTTCTACCTTGGCTCTCCCTCCTCCTAATCTTCCATTTTCTTACTTTTCAAACATAATTGACAAGCCTTTTTT  
AATTTCAACAAGGGTCTGAAGAGAGGTGTCTGATTTTCCGTAAGGCTGGGTTATATAAGCACACAGAGTTGAATCAGAG  
CAAAGGAAAAATCCATTGGCAAAGGAAGAATACTATATGCTACTTTAAACTTGTCTGAATGTATTATTTTATTTACTT  
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TAGGCTCAAGGGATCCTCCAGCCACAGCCTCCTGGGTAGCTAGGACTACAGGTGCACCCCTACCATTCTCGGCTTAAAAA  
ATATATATTTTAGAGTCTGTTTTGCCCCGGTTTTGTCTCAAATACTTGGCCTCAAGTTATCCTCCCACCTCAGCCTCCTA  
AAGTGTCTGGGATTACAGGCATGAGCCATGGCACATGGCTCAAATATATAATTCATTAGCTGGTAATAGTTTGAATTTG  
GAAGAGAAAAACTTAAATGATAAAGAGGAAAGATGGATTGTGAATAGAGTAAATATATATTACTGTAATTATGTTAAGC  
CAATCAAAATGCAAAGGACAGTTCAAAGGGGACAAGTATGTAAGCCACATTCCAAAAAAAAAAAAAAAAAAGCTTTGAAGTGA  
AGCTTTAAAAAGATAAGCTTTGTGTTGAGCTAAAGAAATAAACTCTATAAAAAACAAAACCTTAAATTTGTTATGACAAT  
GAATTAACATTCAAATGAACAGAACAGAAATGTAAGATTATTCCTTCAGGTGGTAAATGTTTCAACACAGCTCTC  
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GAGGTTCTGCTTGGGGAAGCCAGGGAAACCTTTACAAAGAAATGATAATTTATTTGCATATAAGTTCAAGCATATCCA  
TTCCATACATCTGTGAGTACATTTGTAGTTCTAGGCTGAAACTCAGAACTGCACAAGGTCAATGGAACCATATAAATA  
TTGACCTCATTACTGACTTGTCTTTCAGTCTCCAGTCTCTTGAGTGAATTTACCTTTGCTTCTTTGTTATTATAAAAA  
CAGTGAGGGAAAGTAAACAAGGAGGAAGATGAAAAGAAGATGAGGGGAAGAGGAGCAGTTTACAATATACTTTCTA  
TTACATTTGTTTACACTATCTCAAAACCTTTTTATACGTAGAAAAATACTAAAGCAAAGAAAAATGGAAGTTAAAAATCGG  
TAGCAGTAGTAATAGTCTTATAGTAGGAACCTTGTGTTTTGTTTGAATATGTGTCTGTGTCTGCCTACAAAACATAAACA  
CCTTAAGCTAAGAATAACTGTGAGATTAATTTTTTATTTTCAAAGAAATAATACAAATTTTAAATCTTGCATTAAAAGG  
AAAGCTAGCTGGACGAAACTTTTCTGACACACAGATTTTGTAGATAGCACCATAAATATGCTTCAATGCTTGTCACT  
TGATCCCTTTTTGGCAATTAACTTGCCTTTAATTGATTTGTGGATTACCCACTGGAAGTTGCTATGGATAAAGGAATGT  
AATGGCAGAGTTTGTGTTATATAGGGTAACAAAAAGACTGGCTGGGAGGAGGATTAACTGCAAAATATCCTTGATTT  
TCAGGAATTTTTCTTTTACATAATGGCAGTGTGTTAGATAAAGAATGGAAGTTAATGAATCAGATTTGTGTTCCCATC  
CAAAGGAAGGATTTATGTCCTGTTTAAAGAAATCACATTAATTTGATGACGTTAGTACATTTCTCTAGTGAAAGAGTGGCCA  
CTTTAGTGGAGGAAAAAACAAGCAACAAAACCTCTTCTGCCATCTTCAGGTTGTACCTGACGAAAAGCTTTTATTTGT  
GGGTTCTATGAAGTATCACTGCCCTGATCTCAGATGAATAAAGATGAAAACATTTTCATCGCTCAATAATTTGTTTAT  
CTCACATCTTACTGGTTCTAGAAAAGGACTATATATTTTCCCTCCTAATTTCTCAGTTTCTTGTATAAAGTTTCAAA  
ATGCTTTGAGTAGAGTTGTTTCAGGAGGCTCTCAGTGGCACTGCCACTCACTGGTTGGGACGTTTTTGTCTCTGTCTC  
CTGTGTGGAAGATGACAAGGACGGCTTTGTGCAACTTCTGTTGTATGCGCTGCTTTTCAACCCCTTGGATGAGATAC  
ATACAAGGAACGTCAGGTTTTTTTCTTAAAGCAAATCCGTGTAAACTGAGACAAACATAAATCTTGGGAGATCTGACAC  
ACCAAAATGCAAGAAAGGGAAGAAAGAAATTTATCGGTGGGGGAAACAAATATCCTGTATTTTGGAGTGAATTTA  
AAAGGCTTATGTTTGTGTTTGTGTTTACTGACTACATGACTTAAAAAAGTCTCGCAGTCTTGCCTTCTCATGTTGGTTAA  
ATGGAAGGATTCTCTTTCTTTGCTATTTATAGATAACCTTAGCACTCTGCAAGGATCTATTTGGTATAAAATGATGG  
GTGTGAATGTGCCAGTAAGAGAGAAAAAATGCTTAGCCATATTTACTCATATAACCAACATCTAGGTCAAAATCAAAA  
TATTACCAGCTCCCAAGGGGACCCCTTTATCTTCTTCCAGTCACTATGCACCCGAAGATAACCACTAAGTACTTCC  
AATAGCATAGATTTGACTACTTTTGAATTTTATATGAATGAAATTATACAATATAAACTCTTATTTTATTTTCACTCAAT  
ATTGTGTTTATGGGATTCATTCATAGTGTGTTGTGCATTCTTTATTTCTCATTTTGTAGTATTGCACCAAAATGAATATG

Fig. 6.27f

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CTACAATTTACTTATTCTAGTGTGGATAGTTAAGTATTCCAGTTTTAGGCCATTATGAATTAGAGCCATTATGAA  
CATTATTGGATATATCACTTAGTAAACAAATGTACATGTAGTGTGGCAGTGTGTTTGTGCATACACGTAGGTTGGGTATA  
TCCCAAGAGGTAGGATTCTGGGTCATAGGTTATGCCTTTGTCTTTAGATATTGCCAAATGTGTTTCTATACTGGTTGC  
CACATTTATGTGCGCCCAAGTGATGTTTTCAGTCTCTGTCATCTTACCAAAGTATAGGTCATCCATTTTCAGTGTG  
GCATCTTAAAAAATGTTTGCCTGTAATAACAATGTATGCCTTTTATTTATGCAGTTGAGTCTTTAATCTTTAGG  
ACCTGTTTTTCCAGGAATAGTGTGGGTACAGTGAGCCATTACACTCTGTCTGTTTCTCCTCATGATGAATACATGT  
AAGTGTGAATTAAGTGACTAAAATAAGAAACGATCTGATATGCAGAAATAGAGTTTTCCCTGTTTGTATCCATATGCAGC  
TTAAATATGTGATGTTATTCTACATTTTATCCAGATTCAATTTTCAAACCAATAGTAATCATTGTTAGCAAAAACCAAT  
AAATAATCTTTTATTCTGTTTTAAATTTCCATGTCTGTTTGTAGTTCTTGCTATATATCCCGTGCTCACTTTAAATC  
AGGTTTTCTTCCCGTACATTATTTCTTGGAAAATATGTTTTGGACTTTTCTTAAACCACTTAACCTGTTGAAAAACA  
CTAGTAAATGCATAGGCAGTGTAAGTCACGCTAAAATAAATGTGTATTGCTTTTTCAAGATTTTGTGTTACCCATGCATT  
TAAAGAAGGTTTTTTTTCCCTTTATTTTCTTTCTTTTGTGCTATTATAGTCATTATGTCTTTTTAATGTTAAGATTCCGG  
TAATATATATTCTCTATTTTATGTCTCTCCAAAGCTCCCCATAACTGATTGATGATCAATCCGGCTTCTGGCATA  
TAAAGTTTGTGACCTGGTTCAGTTTTGTACCATGTCAAATGTGATCATTAATTATTAGATGATGTCAGGAAAAATTTA  
GTATGTGTGATAACTGTGGGTCCCATTCTTAAAGCTTCAAATCCAATCTTAAGGCTCTCTACTTTGTGGCATATGA  
GGGAACATAAGTAAACATTAGAGCAATATCAAACGTATTCTAAGGGTTTCTAGTGTGAACAAATATATCACTTTATTA  
CCAGACAGATACTTCAATCGTGAAATTTGAAAAAGCATACGAGGTGGGGCACAGTGGTTTACCCTATAATCCTAGTGC  
TTTGGGAGGGTGAGGTGGGAGGATCGCTGAGTCCAAGAGTTTGACACCAGCCTGTGCTACAGAGTGAGACCCCATTTT  
TACAAAAAATTTAAAAATTAGTAGGGTGTGATGGTGCCTGCTGTAGTCTCAGTACTCTGGGGGCTGAGGAGGATTG  
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TCTCTGAAAAAAGAAAAAGTATGTAATTTTACGTAAGAGTCACTCGATTCAATCATGAAGCTTGTGCTAAAAATGG  
AATCATTCAAGTGTATGAGGCTGCTTTCAAGCATTTTTCGCTCACCCTTTACCATTATGACAGTAACTTTGGGGAAA  
GGGGAAGGCATGGGCCAATACATCTTTAGTATTTCTTGGTTATACTAAGAACTACTGAGGAACTGCTAAGGAACAACT  
ACATAGATAAAAAGTATTTTATTATAACCTTGTGAAAAACCTCTTCCCCATAAAACGTTTAGTATCTTGTATGAAG  
GCATAAGTACTTTTAAATATTCAAATCCAATTCAGATTTCATTTATGTGCTATGTACTGTGTAATCCACCACGCAAA  
ATGTAATTTCTTGCTTTTAAATATAAATTTTCAATTTATCATATAAATGAAGTCTCAGACCACAACATTTGTTAGGTTGC  
ATTCAAATGGTAATCATATAATGACCTATACAGTTTTTGCATGGAAAGGCGAGCAGCGGCTGAACCTTTTCCACTT  
TTGTCTTGGCTCATTAACAACAATGGACAAGTTACCTTAACTTCATGGGTCCTCAACCTTCTCATTGAAATTTGAGTG  
TATGGACTGTATATACAATATCCTTTAAGCTTACAGAAATAACATTATGGAGGTATGAGAAAATTGTAATGATCCA  
AGATATGTGCCATAAATATTTCTTCATACATCAAGCATGCATTCAATGAAATCAACACCAAGCCAGGAAATATCAAAGAA  
TAGCTCAATGTCCCTGTGAACCTTATATCCAATTCATAATTCATCCAAACAAATGTATATTGAGTATATAATCTGCTAGA  
CTTATGAAGCCTTAAACCTTATGCTGTACATTCTGATATATGTTGTTTAAACCAGGGGTTGGTCAGCTTTCAAAAGTGA  
CCCTTTTGCTAACATTGTTCTTCTGGCTGAAAGCTAGTAAGTATAAGCAAAAGGAGAGATGTATATGATCTCACTTCTA  
TGTGGAATCTAAAAAGTCAAACCTCACAGAGGCGAGATAATAGAAGGGGGTTACCAGGGGGTGATGGGAACAGGAGGAT  
TGGGGAAATGGTGGTCAGAGGATATAAATTTTCAGTTAGACAAGAGGAATAAGTTCAAGAGATCTACTGTACAACATGG  
TGACTATCATTAAGAACAAATGTATTGTAAACCAATATTATATGTGGTCACTTATAAGTGTGACCTAAATAATGAGACC  
ACATGGATACATAGGGGGGAACAACAGACACAGGAGCATACCAAGAGAGGGGAGGGTGGGAGAAGGGAGAGAATCAGGAA  
AAATAACTAATGGATACTAGGCTTAATACCCCATGACACGAATTTACCATTGTAACAAACCTGCACATATATCCCTGA  
ACTTTAAATAAATAACAAACCAAAAAAAGAAAAATTTCTAAGAGAGTAGATTTTAAATGTTTCTCACCACAAAAAA  
GTATGTGAGTTAATGCATATGTTAATTAGCTTGATTAGTCTTCCGTAATGTGTACGTATTTTCAAGAACATCTTGG  
GCACTATAAATGTATGCAATGTTTGTGAGTTAAATATTTTAAATGAATTTTTTGAAGAGAGGAGGGGTGTAAGGATGA  
AGACTACTTCTGACTTTATATTTTATATTTCTGGGGTTACAAGAAATGAGACCTCCCTGATGCTACACACAAATGGATTA  
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CAATTTATATATGAGAGAAATAAAAAGGACTAGTAAAAATATATGAAGAAGCAACTCCAATATGGTAATTTATGGTT  
CAAAGCAGATAGGTAATTTGCTTCTCTCAAGAGCCACTAGACCACAAATATCAACATCAAGATGAATGCAAGCGCTA  
GGGGAACGATACAGATCAGAGGCACCATGTGTTGTGCTTCTGGTATTGTCAGAGATAAGGAATGAAGCTGAATTTT  
TTCATGGATTGTCTTGAAGGAAAATAAATGAGAGGTTATGCTAAGTATAAAACTATCTTTACAAAGTCTCTTCCGT  
TAAGACCTTCAAAGATATGTAATATCATAATTTGAGAATTGCTTTTAAAGACCTAATTCAGGTTAGCTAAACAAATCATT  
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AAATCATGGCTCTTCCACTTGAGCTTCTATGACATTTATGAAATTCCTTAAAGTGTGCTCTGTTTCAGGTGCTCTGCG  
CCTACATCATTAGAGTTATTCAAGTATTAATGAGATAATACATATATAGCCGTTAAACTAGCGCCTGGCATAGAGTAA  
ACAGTCAGATCACATCAGCTAGCGTTATTCACAAGAATAGGCTATACATTTCTTCCATCAAAGATAAGTGCAAGTTT  
AATAGAAAAATTAATTTATGAAACAAGACTGATTTTATGCTTTTCTATAGTGCCCATGATTCAAAGGAAAAGAGGAAA  
TAATCACCAACCAAGTGACCTGTAAAAATAGATAGGAGTTACGCCATGCATACATACATACCTTTGCCAAGAAAATTGGATGTCT  
CATATCTAAAAAATTTTCAAGTGTAAAGAACTAGCCAAGTGTCAAGTACACAATTTGTATTCAACA/TATATTTACAGAA  
TTAATTTGTAAAAATTTCAAATCACTGTTATTGCTTTTCTACTTGTAAAAACAATTACAAAATCCCTTGGCTTTTGT  
GGTGTGAGACTATTATAAGGACTCTGATGCTTCATGACAGGGAGTAATTTGATCCAAAGTACAACGGAGCTSTCGTGTG  
GATTTAAGTTACCAAATATTGAAGGACCCATGCACCACCAAGTATTCAAATCACAATATAATTTTATTATCTCTAC

Fig. 6.272



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CCTCCCTTGCAAATGTAATAACTCTGAACTGATAAACACATTGTACCTGTGTAGAAAAATGCCACCCAGAAGGAAGCTG  
ACTGCTAATCTAGGCTGTGTCTGTCCAAAGAGAGCTAGTAGCCATAGAGCACTTGAGCTGTGGCTAATCCAAATCAG  
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TCATAATGATTACATGTTTAAATACTAACTGTGTATAGGGTTAAATAAAACATATTTAAATTAATTTTACCTGGTTG  
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AAGGAATGAGATCCTGTCTGCAACAATATGGATGGAAGTGGAGGTCATTATATTAAGTGAATAAGCCACACACAG  
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GGTTATCAGAACCCTAGGAAGGGTAGTGTGAGTGGCAGGGGTGTGGGAGTGGAGATGGTTAATGGGTACAAAAATATATTTA  
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GAGAGAATTAAACATTAGCAAATAGGGGCTGTTGATGAAAATGAGATTCCAGAGAGGGTGAGAAGACTGAACACATTC  
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ACCCACTAAATTTTTCTAGGGGAAAAGTAAATGTAGCTAGATGATATTAGTGAATTAGGGGATTTGTGAAGATGCATTTGA  
ATGCTAAGAATATAATTTCTAGTTTCTTAGTATTTTTGAAATTCAGTGACCTTTTGTAACTCAAGAGACTGAGGCTAAG  
ACACCAACATTTTACCATGTGCTTCAATCATTCTCTCAAGGACGCACAGCTCCTCTGAGCTGTAATAGGAATTCAGGTCT  
GTGTGACTCCTGAGCCACATGACCGAACGTGTGCCATGGAACACTGGTCCCTGCAACTGCTGCAAAATATGGTTC  
TATACTTAAATCATTTTAAAGAAATGTTGCATGTATCGTTACCGTCTTAAACATGATTATTGATTGTCATATTAAGGC  
ACTGAGAATTGCTAAAAAAGTGTAACTTTTTTAAATCTTTTTCTCAAACCTTTTTTGCCACAGAACACCTCCTCCCC  
TGCACATGCATCTATATGCCATTTATCACCAGTTGCATGCTGAACTAACCTTAGACAGAATGCTATTTGGAATGCTG  
AGATGCCCTTAAATTGCCCTTCTATCTCTCATTATTAGTTACTAAGGAAAAATGGCTTTGAGAAAAATATAAAATTTTC  
AGGAAAAATATGTAATTTGATGCTCAGATAACTCACTTTTTGCTACATCAGAAAAAGCAAACTAGAATTTAAAAATAAA  
CTTGGATGCATGCTTTGGTTATTCTTATATTATAGTGTGTGATCCAAAGGGAGTCAAAGAAATCTGTAGCGAGGCTGC  
TCACAGTCTAGGTCTCTTTTTGTGTAGGACAAAGGTAGGGCTTGGCTTCTAGTTGAAGCTACAGTTCTGTAGGACTTGG  
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TAATGAACAAAAGTTTCATAACATATTTTATAAGATATTTTATAACATATGCTCTTACAATTACTTTTTTATTTCTG  
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CATACTTCGATGATCTTGGATTCAAATATGATCCTCTGCCTTCTCACAGAAAGAAACAATTTAGGGACATGGACTTAA  
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CTTTTGCCTCTATAAAGCAGGGCTATGGTTATCTTCCCTTATTACCTCAGTTGATTGTTGGCTGTGAGAACCAAGTAAG  
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AACTTAAAGAAATATTGAGAGGTTATCTTTGACATTTACATAAAACCATGTATGAAACAAGTAGTCTTGTGTTTTTTT  
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TTGTAAAAGCCTAAATGGGAATGAAGGTGGTTAGTAAGAGGGTTCACAAGATGGAGAGGCTCCCATGACATTTGTAGGT  
TTAATCTCGTGCCCATGACCTCTTAAATGTCCCATGCCCATTGAGAATACCCCAATTCATTCAAAGGCAAAAACA  
ACGTGACATTTGTGAATCATACCRGATGTTCTAGTAGAAGTGTGTTCTGCTCTATTGAGTTTACCCAGGAGAGGCATC  
AAACTCTGCAATCAGAACATATCAACACATGGCCTATTAGCTGATTCTGCCACTTGGTAGCTGTATATTCTCTCTGT  
TTAGTGTCTTATCTGTAAATTGAAATAATAATAATAGCTCATAAGGCTTTGTGGGGATTAAGTGAGATAATCATGTAC  
AGTGCCAGCAGTGTCTACTGCATGGTAAATACTGCAAAATGTTAGCTGTTGACTGCTCTATTATGACCTTCAT  
TATTAAAAAGGGGAACCTTAGGCTGACGCAGGAGAATGGCGTGAACCCCGGGGACGGAGCCTGCAGTGAGCCGAGATCA  
CACCCTGCCCCCAGCCTGGGCGACAGCGAGACTCCGTGTCAAAAAAAGGTGGGGGGGGGAACCTTATGA  
ATGCCTTTCACTTATACCAGCATCATTAATAATTAAGTTTTTAAAGAACCATGAAAAGCTAACCATTGACAATTTAAG  
AAGCATGCAAGCTTGGTTTACAAAAGAACTGGACAAGCTCAGAATGGGCTAGTTTCAAGTGGAGTGCAGTGCAGGAGCT  
CAGGTTTTGAGACCTTCTGTCTTCTTCTCTCATCCTTCTCTCTTTTTGTGTTCTCTCCACACACTTTTCTCATCAA  
AGCCAAAACCTTTGTTTCTTGTCTATATTCTCTTTTTAGAGCCTGCTCACAGTAAATTTTAAAAAATGAAGAAGTGCTG  
AAAGTGTAGATAAGCAATTAGACATGAGTTAATGTTTTTTTATTGCAAGAGCATTGCAATTCTAATATGAAGTGAACAT  
TGAGTAAATAGATTCTGACTCCCTAACAGGCTATGTCTTGTGTGAGGAAGCCAGCGCACTGGGCTTCTTGGTAGGCA  
GGAGACCCAAAGTCATCATCTGTACTAAGGCTGGGTCTTGGAGATGGAGAAGGCCGTAGAGAAGGAAAGCCAAAAA  
AAGAAAGGAATGAGATTTTGATATATTAATTAGCTCATACATAAGCCTGGACTTTTGCTAGGCATTTTCCATGGTAAT  
TTGGTTATACCTCAAAACAATTCTCAACATTATTACTGCCACCACTTCTGTTAGCAGCTGTGAGAACAGAGGTCAT  
GTGAGTAAGCAGTTTGTCTAAGGTTGCATAGCTTAAAAAGTAGTCAATAAGCTAAAGTTTGAACCTGAGATGCCTGGC

Fig. 6.273



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CTTCACAGCTAAACTTTTTATTAATTACACCTGCTTCTAACAACAACAACCATGGCTAAAGTTTCATTAACCTACCAGTT  
TCTAACAACATTAACAAAAACATTTTCAAAAATATAATAATAGTCATCAATAGGAATAAAGGGAACAATCCAAAAATA  
GCTCTGTTGAGGTTACTGATGGATGGGGACAGGAAAGTACAAAATTTTTCTACGAAAGTTTCCCTTTGAGGATCACTT  
TCCTTGGCTGTCTTGCCTTGTGAAATTATACCTTCCCTAATGGCTTGGAGCTGATTGTGCCCTTCTTCTGTCAAGGAC  
AGCTTAAACTTCATGGAATAGTTTATTTGAGCTTGTGGGTACCAATTCCAGGCAGCAAGATACCTACTTTTCAGAGATT  
AATTAACCTTCCCTTCAGAGTCACAGCAAAAAGCGATAGAGCTAAATTGATTACCTTGAAGTGCCTTAACCGTTTTGCTGC  
TGTTGTTACTTCTTGAGCCAATTTATTCTCCAGCAATGTCACTGTTACTGAAGTTGGTCTGTTCTTTATTCTCAGTTT  
ATGAATAGGAATCATCTGAATATAGTTATAGACCTCTAGTCTAGATCATTTTTTGCAAAATTACAAAGATGGGAAAATT  
TCCAAGCCATAGTTATTCCAAATGGCTGGGAGTGCCTTAGGAACTTATTTCTGGAGTCTTTTGAATATTTATATTATT  
GATATGAACAATGCCCTGATTGTTAGTTAGCAATCTATTCAATTGATAGGGACATGAAAGGCAGTCTGCTGCCATCTAG  
CTTTTATTTCTTATCTTTAGGAATTTTCCGGTCTTTTCACAGAAAGACACTTTTTAAAGGAGCAATCTTACTTTCATC  
CCTGAGAGGGAGACACTTATGAAGGTACTGCAGAATCTTAAACAAAAGTCTTCATCATTCTTTACTTCTTTTGCCT  
TTAAGTTGGTCTTAAATGGGTAAAAGTGATAAATGTAGGTTGTGTAGTTCAAATCCATTGCACTGACTAAGCAAGTCAAC  
ACCCATAGGGGCAAAAACATATGTTTTAGAGGCAAGATTGATAACCACAGCCATGACCTGAGCAAGACTGTGAAA  
TAGATGCAGTTCTTTGCCATCCTCCCTTTTCTGAGTTATGGGCACTTTCTGCCTTCATAGCTGTTTCTCTGCAAAAT  
GGAGATTTTACTGTGCAAGTCTCCTATTGCTATTGCTTCTTGGAGTTGGTTCCTCATGCTCTGGGCACAGGAAAGCAAT  
CTGAGATCTTCACTACTAGTATTTATTGAGCACCTATACTATGCCAGGACTGGACTGTGCTCTGAGGTACAGTGGTAA  
ACATACCGACATGGTTCCTGCTGTCTATGAGCCTTCCAAAGGAATAGCGAAGAAAAACATTAACATATCAGCCCATGAT  
TAAATGCATAATTAGATAAAAATGCATTGAAGAAGTCCAGGAAAGGAGAGAAACCAATTAATATGATGGATGGG  
AAATCAAGGCTGCTGGAAGGAAGTAGTGATAAGCTGAAAAATGAGGAGTGAATAGGAATTAGCCAAAGTGAGGAGAG  
GGCAAATGGGTTTCAGGAAAAGGAAAAACATATGTACCAGTAACATTTCAAGAAGAAATGGGAAGGATTAGATGATTT  
TGTTATTCTTATAGGTTGATCTCTTCCATGGAAGAGACACAGAATGTAATTAATTTATAGAATATAAAAATGATTT  
TTTTTTTTAGGAATGGGGAGGTGAGGAGAAGACCCGCTTCAAGTTCTGTTCCTAATATTAAATAGGTTTTGCTTCTCTA  
CAAACCTAAGTAAAAACATGGTGGTACCAAGGGTTGGTTGGGAGGCACTAGTTTTCCAGTGATACATACTCACAACCTAA  
CATAAAAGCTAAATACGTATAATCAACATGCTTACACTACAAACACAACCTTCAAATAAAATTCAGTAGATCAACCGGGC  
ACAGTGCCTCACACCTGTAATCCTAGCACTTTGGGAGGCTGAGGCGGGCAGATCACCTGAGGTGAGGATTTGAGACCA  
GCCTGACCAAGGTGGTGAACCCCATCTCTATAAAAATACAAAATTAGCCAGGCATAATGGCAGGTTCTCTGATGCTCC  
AGCTACTAGGGAGGCTGAGGCAGGAAAATTGCTTGAACCTCAGGAGGCAGAGGTTGCAGTGAGCCAAGATCATGCCATTG  
CACTCCAGCCTGGGTGACAGAGCTAGGCTCCATCTCAAAAAAAGGCTTCAAGTTCTGTTCCTAATATTAAAGGCTATC  
CTCTTCCAACCTTTTTTCCCTAATTTCTTCCCTTAGCACTGATATTATCAAAACAAGTGGCCAATCCTATAAAGGCTATC  
AGACTCCAATTTAAAAAACTATTAATTTAAAAACACTCAGAGATATAATGATTGTATGCCCTTTTATGAGGAACTTA  
GTACCTAAAAGAAAACCTTATACTTAACATTAAGCATATAAGGTAGCTATTATTCAAATAAGTAGCAGTAAAGACTT  
TTCAGCTTTGGATCCTCATAAACAGACCTGCAGGTTTAAAGATTTCATACATCTTTTAAACATGCATCATTTTTATT  
ATAGTATATTATATACTATTTTATATTACTTAATGAGATTACTGACCTGGGTTTCAAGATATGTATGAAATATAATTA  
GGATATGAAAATTAAGATAAATTATCCCCACCAGAAATAATCTTAGCAGGTTATTTACTAAAGAATCTTAAATCCAGC  
AGATCAAGAAAACCTCCCAAGGAGTCTTTAATTAGAACTCTTTAGGATGGAATCAAATCTCTCCATAAAAAATGAAT  
CTTGCCTTAGGCTACATAAATTACAAAATCTGAAGCCCTTTAAGCAGCATTAATACTGCTGATTTTAAATGCTCTGATA  
ATGAATGGAGAGAGACACACTAAGCTTCTGGATTCTGTGTTGGAATGAATGGGATTCTTGCCAACATAGGATCACAG  
TTATGAGGTAATCTGCACAGGAAAATCAAAGAAAGCAGATGAGCACTTGACATGCTATGCCATCCTATGCCTTCTTCC  
TTCCCAAGAAGCATGTTACAATACTTTAAGTGAAGTTTGTGCAACTTTAAGTGAAAAGTCTCCCTTTCTGTCTAAT  
TTTTAATGTAACCTTCCCTTCTCGATATATCCAGAAAATAGTTAATAACAATCCCTGAGGGAAGGAAAGGAAAGTCTGCC  
CTTCATATTAAAAAAGAAGATAACAGAGATCCCTTAGTGGTGAGTGATTTATAGTGAAAACAGCCAACCTCATTCTC  
TTTTGCCTCCTTTTGACCTAGAGAACTGGATTGCGGATTTGTAAGTGGATTTGATTATAGAGTATGTTCTATGGCTA  
CAAAAGAGTTTTCTTTGAGGAAAACCTCAAACGCAACAGATATGCTTGGTATATCAGTTTTCAATGCTTTCAATTGT  
AAATAACAGAAAACCTGGACTCACAATAGCTTGAACAAATAGGAATTACTTTAAGTAGGTGGCACCGGAGGTGTTTCAG  
CTGTTGCATGATGTTATACCATTTGCAAAGAGGCAGCATCTCCACAATTTTCTGGCCTGTTCTCTTGTATGGCAAT  
GGCTACTGCACGTCCAGATGATCATGTCTGTGTACAGATAGTGAGAGGGAAGGAGGATGAGAGAGGATGGCCAG  
CTAAAGTTGTATCTACCCCACTTATAAGAAACACAAAGCCCTTCCCCAGAGCTTACAGCCCTTTAGCCAGAACTATGAC  
ACATGGTCATCTTGAGTGCAGAAAGATGGAAGTTAATTTGGTCTTTCTGCTCTTTTAAATAAGATAGCAAGGATGAA  
GAAGTTTGGAAAAGACTGTGGGCTAGCCAATCAAATTGTGACCAACATTTGGCCTGTATTAATGTATAGTTTTTAAAGC  
CTAATGTCAATTTGTTAAGGTGTCTTAAGGACAGGAAAATGGAGAAGAACTAAGATTTTTTATATCAAATACAGAGTAA  
ATCTTGGAAAAGGGTGAATTAGAGTGGAAAATAAACTAGACATTATCTAAGAGTGCTTGAAGCCAGATCTTGCAAAACA  
TTAGGCAAGCATGTCATCTAATGGAACCCAGGGCTTTCCATCTCATATGTTGGAATAAAAATAACAGTGTTTTCTCTCA  
GTTTTTAAAGATGTCAACAAAATTTCAATAAGTATATACATATGTAATTTGTTTAAAGTAAAAATTTTATGCTG  
TTTTGGGAAGAAAATAACCAAAAAAACCATCACTGACCATTTGGTTCATCAAAATCTGATTTATGCTTTTACAAGA  
TAAAAACAAGAATAAATAAATTTGTTGAAATATTTTCATCATATTGCCTCTGAAATGATTGATGTCATACTGCCTGG  
ATTTAGTCAACTCAGTGAATGATTTATCAGTAGCCATGCTCTAAGGAGCTCTCTATTATAGATACTTATGATTTGGTG  
AACTGGGAAACCCACAGAGAAAGGTAAATGAAATAGGAGAGCCAGGTAAATGGCCATGGATCTAAGAACCAGGAATCA  
TGATTGTTTGAAGAACATATCTCAGACTGAGAAAAGCTGGCGCTAAAGTAAGCTAGCATTTGATTAGAATGTTGAAGG  
ATAATTTCACTTCTGGAGACAGAAAACCTAAGTAGAAGCAAAAGAAGTAGGAAATAGAAGCCTGTGTTTGAAGATTCA

Fig. 6.27

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GAGTGACTGTGTTTTATTAGAATTGCAAGAAAGGGAACTTGAACATAAATTTAACATGGGGCAACAGGCCTTGGATT  
CTGAACAGAGGGACTTTTGTAAAGGATGGCTCTGTGGCTGTGGAACAGTTTTTCTATAGATTATCAAAATGATTCTGGA  
AAAGAAATGTCATTCTGGACTGAGAGCACATACCATAGGGGAAACATGAGGCTTATGGGCTGAATTGTGTACACCCAA  
AGTCATATGCTGAAGTCCTAACCTAGGACCTCAGAATGTGGCTTTATTTGAAGATTGAGCCTGTAAATAGGTGATTTTG  
ATAAAATGAGATCATTAGGGTAGACCCGAATCCAACAAGGCTGGTGTCTTTATAAGAAAGGAGATTAAGATGCACGCG  
CACACGCAGAGAAGACTACGTGGAGATGAGGAGAAGATGGCCATCTACAAGCCAAGAGGAGGCTCTCCGAAGAAACC  
AACCCCACTGACATCTTGACCTCAGTCCTCTGGCCTCCGGAAGTGTTTTAAACATAAGTTTCTATTGTTAAAGCCACC  
TAAGTCTGTGGTATTTTGTAAATGGCAGCCCTAGGGGAAAACTACAATGAGCAAGTATTATTTGTATTTTAAAGAAATAAT  
ATTATAAACTAAATTCATGGAGGGGAAAAATAGAAAAAGAGGTCAATTTCTGAAAACATTGTATAGGTGTAACATAGTTGA  
CACTATCAACTACTACAATGGGATCAGGAGACAGAGGGTCAGTGATAACGGAGCTCTCAAGACTGGAAAAGTGGGCGATC  
CAGAAGGACAGGCGGTTGATGAAAGAAAATGATGAGTGTGGTTGAGGCTGCGTTTCCCTTGAGGAGGTGCTGGTGCTCA  
GGGTAGAGGCATCCATCAGGATGTGAGAAATGTGTGTGACACGCAAGGCAGGAATGAGGCTGTCGAGGAAGCCATGCG  
AACATAAACAGAGAAGTGCCACAGCGAGACAACCAAGCAATGTGTAGTTCTTGTAAGTAGCTGAAACAACATA  
ACCAAATTTGTCATTTTAGTCTACATAGAAATTTCAATGTGAGAGAAAGGCTTTAATCTCAAAACGAAATAAACTAA  
AAGACATTATTTTCTGACAGCTAAGTCTTAAATTTCTTTTGAAGATAAAAAAATGGTTTTCTCTTTAACATAGA  
GGCAAACAGTAAGTCAGATACTTCAGGGGAAGGTAGCTTGGTGATTTGAATGTATGTGAGTGTGAATACGTGAGATTA  
GAATCTTACCTGAGAACAATTTTTCATGAGCATCATTGGAGAGTGGGAGAGCATGAAGACTTTTACCCTTCTCTGCA  
GGAGAGAATTTGTGAGGAGGAGGTGGGGAGAATGCCACCAAGAACAGGTTGCCTGGGGCTAGTTTAGCGATTGGGTCCTCA  
AACGATCTCACTAATGTGAAAGGATCATAGTTACCTTACCAAGGGAAGTTGGCTTCAACTATATATTCAGTCTGTGA  
CCAGGTTTTGTCTAAATGCTACTCTTTGGAGAAATACCAAGAAATTTAGATGAGTTTACCAAATCCAGATTGTGTTCCC  
TGCTTTTAACTCTTTGTTACTGAAATAGCCCCCTGATCCCCAAGAGTAATGCTTGACTGAGGTGTTGTCATGAATGTTT  
ATATCATTCATTAATTAACGTGATGAACATATTAAAGATAGGACTCCCAGTTTTCATCCCAAGGGCTTACATATAATAG  
TAACAACCTTTAGAAAAGTACTGCATTGTTTATTTATAGAATGGCTTTGACTCACTTAATAATGTCCATAATTAATTT  
GTAAATTACTTTTTGACTTTGCACAATTATAATTTAATGTCTATATCTGCAAAAGAAAACACTTTTATGTTGCTAATA  
TTAATTTCCCTTCATAAATTTGAGACTGTTTTGACTATAGATAAATGTAAATGTCAATGTGGTGAGAATGACTCAGCT  
TCTCAGATATTCATTTATCTATAAATATTTTTGAATACCTACTATGTTTCAGGCACTGATCTAAGTGTGTAAGTA  
GACAAGGACAGCCTGCCTTCAGGTTTTTACATTCAAATAACACAAGATGATGAAGAAATTTTAAATAATCTGGTTC  
CATTGGCGAGATAATATAGATATGCTCAGTTTTTATAAATTTTGATACCTAAAGTATTGTGATAATCCAAATCATGACCT  
TTAGACATTACACTATGCTTATTGATTGAAGGTTGACATATGTTTAGCATATTCTCTTATAATGTATTTAAGGACTTCA  
GTGAGTAGACAAAAGAAGTAACTTGATCAGACAACATGATTCTGAGAACAGACTCTTCCCTGGAGCAAGCATTCTGGT  
TAGATTTTACAGGGCTTCAATAAAAAGGTATATGTTTATGCTTTTGTCTAGTTGGGGGTTTCCCTAGCAAATGATTCCAT  
GAAAACATTTGCAGGGAATCCCATCTGTTCTATATTTCCCTGATTGGGGGCTCTGAATCAATAATGCTGATGAACA  
GTTGGCAAATTAGATAAGAACAGCCCCGAGACTTCTTTTCCATTAGGTGTAGTCTCATGGAAAATCACCCCTTGAATCCA  
TCAATGGAAATGAAGCAACTGGGTGGAGCCTATGGGAAATCCTGGAGGAAGTCCCCAACTAGTCAGCTCCCCTCTCTG  
CCTTGCACTCTTGGATTCTTAGCGAAACATCCAAAATGGCCTTCTTGCAAGGAGGATGCAGTCGGTGATCCACATACT  
GACCAACAGCTGTGTGTGAAAGGCACCGTGCCCAACAACAAGGGGCAGTGAGGTCTGCTGAGCAGATGAGTCGCTT  
TTCTGGACCCTTCCAGGCTTGCAGTTGGCTCAGATGAAAAGCTCAGGCTTATGAGCTGCCAGAAAGTATTTGGCAAAAA  
GCCCACCTTTTTTCTCAAGTACACGTATTCAATTGACTTGATTCTCAGAGAGATTTGTGAGGGTGAAAGCAAGTTCAT  
TGTCCACTTTTAAATGACCCTCAACTTCTAATGAGGTAATATATGTGAAAGTGATTTTTTAAATGCAATGCAATACAG  
GGTGTTTTTTAGTCATTATTTAGTACCTGAGGAAAATGTAAACACAAAGCCACACATGTACCAAGGCACACTAGAG  
TGACTTTGGTTTACCATCTAATTTAGCCCTCTGAAGTGTAGAGTCCATCGAGGCTATTATTTTGTGGATTGTGTACTG  
AAGTTGCTTTTTCTTTGTTCTCCCAACATACACTTGTGACACTTCCAACCTCTGATATGTATATGTTAAATACAGGCTGT  
TTTTCAAACAAGATAAATCAATGCTAGCTAGGAAGTGTGCCAGAGTTTAAAGCATTCTAGAATGTACTCCCATATAA  
CAGCTATACCTTATATAATACCTACATTGTGCCAGTGTTCATATATGTGAAGTGCTTTAATCCTCACAACAAACATAGG  
AGGGATGTAGTATTATTACCCCTTTTTACAGATGTGAAACTGCAGTACACAAGGTGAAGTGAGAGGCCCCAAATCAC  
ACAGCTAGTAAATGGCAGTGTGACACCTCAATTTCCACTAGTCTGTCTTCCAGAGTCTATATAATTAACCACTGCTCCCT  
GTGCTTTTAAAGGTTAGTTTAAATGGATATTGTGCTATTTCTAATAAAAGGATATAATTTTGTATATATTTTCTTCT  
TAGTCTTCACTTTTGGATCTTGGACCACATGTGCTATTATCATATTTTAGCTCATAGAGACTTCTCTGATAATTTTGT  
ATAAAATACACTTATAGAACATTTGTATCTTGTAAATGTAATTTTCTTACCATTATCTCATTGATCCCCCTTATCCA  
CCTCTAGAATATACAGAGCTTTATCCTCATTTTTTCAGACGAAGAAATGGACCAAGAAGACTAAACAATTTGTTCAACT  
CCATATCACCAAGTTTGTAGCAGTCTGTGACTAGAAACCAATTTCTGGCTCTTAGTCTTACATTTCTTCTAGTATTT  
CAAATCATCTTTTCAATTTCTCTCCCTTATGCTTTTGGAAAGAAAATGAGAAGACGTTAAGAACCCCAAGTAAATTTG  
AGAGGCATTTCTTGAGAAATATTTAAATAATTTAAGAAGTCTTCAAAAAGTAGTAGGCAAAATGTGTTACATTAAAC  
AACGGATCTCATTAAGTCAGTGACATACAGCTAGGTTCTGGTTTATTAATTTTCAATTTTTTCAATTTTGGGCTGCCTA  
ATCTGAACACTTTGCAGTACAATCTGAGTGCTCTCATGCTTTGTGCTATCGCTTTCTTAAGGTAGCTCATTGCACTT  
GTTCTACATCTGTTCTTCCCTCCAGTCTCTGGGCTCTGTTGCTAATTATTGACCCAGGAAAGCCTCAGAAGGGGCCA  
AGGCAGCTAAATTTGGAGTGCTCTTACTTAGACTTATAATGCATTTTCCATTTTTCAGAAAGAGTAAAGCACTTTTAG  
CTACCAGATCCAGAGACCATTCACTTATATGGGCACTTGAGTTTCTGCTAAAGAATCACAACCTCAATTTAATTTTTTT  
TTTTTTGGTATTTTCAATTCAGCCAGTCTGGAGT  
TCTGTATTAACATATGAGACAGCAGAATAAATGTGTCCATTCACTCATAGATATTTCTCAAGAGTGTGCAAGAAT

Fig. 6.275

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AAAGAATAGTGCTAAAAAAGGTGGAAGATGGTTAGGTGTAAATACCTCCTCTCACAGGACCTGGCACATGACAAAT  
GCTTCAGAAATATTTATCAAATGAAATGAGCTATTACATGAATTGTATTCTCTGGCTTTGCCTCTATTGGGGAAATG  
ATGAAGTCATTAAATATATGCGAATTGGAAAGGAATTTAGGAATCATCTTATGCAGCCCTTTTACTTTAAAGATGAAGC  
AATGGAAATGCAAGAAAGTTATGTGTCTTTTCCAAGCAAGATCACACATCTATTTCGAAATAATATGCTTTTTTTCATT  
GTAACATGTGTTTTAGAGATTACACATATGTCAATGTCTGTAGTGCAGGGCATAATGTGAGGAGAGCTGTTGAATGCTT  
TAGAACAGTGCTACCCAGTGGAATATAATGCACACCCCATATACAATTTTAGATTTTTTATTAATAGCCAGATTTTTTAA  
AAGTTTAAAAGTCAGTGAAATATTTTTTTCATACTAAGTCTTCAAATCCAGAGTGTGTATTATATTTTTGACACATC  
TCAATTTGGACTAGCCATATTTAAGTATTTAATAGTTATATGTGTCTTGGGGGGGGCTACTCTATAGACTATATGGCT  
CCAGAATCACAGAGAGGGAAAAATAATATGTATTTTTAAAGCTGCAGTATTTTTTACCATGGGTATATTTTTTAAGTTT  
GATTGTAACACAAAAGTACAAAATGAAACAAATGACTCAACACATTTTTTTCTTTTTTTTATTATTATACTTTAAG  
TTTTAGGGTACATGTGCACAACGTGCAGGTTTGTACATATGATACATATGTCGCATATTGGTGTGCTGCACCCATTAAAC  
TCGTCTATCTAGCATTAGGTATATCTCCTAATGTCTATCCCTTCCCCCTCCTCCACCCCAACAGCTCCCGGTGTGTA  
TGTTCCCCCTTCTGTGTCCATGTGTTCTCATTGTTCAATTTCCACCTATGAGTGAGAACATGCGGTGTTTGGTTTTCTG  
TCCTTGCGATAGTTTGTCTGAGAATGATAGTTTCCAGCTTCATCCCTGCTCCCTACAAAGGACATGAACCTCATCTTTTTT  
ATGGCTGCATAGCATTCCATGGTGTATATGTGCCACATTTCTTAATCTAGTTTATCATTGTGACTCAACACATTTAAA  
AAAAAATCTAGAGTAGACCTATACAAATTTGACAGATTGCATCAATAGTTTACAATTTTAGACACCCCTACCCCTCCACA  
CATAGAAATTAGTGAATAAGCAGACTGTCAATAGTACTGGCTCAAATAATTCTACATACAAGTTCTACCAAATTTCAA  
GGGAGGGGTAACCTTCTACCTTATACGAATTATCTCATTTTTACAAGTAACTATAAGTATACAATAAGTATCCATTTCGAGC  
ACTATAGGAGCTTGAAGTGTCTGCCAATTTTTAAAGAAATATGCTCAAGCAATAATCTTGGTTATCCATATTATCTTACA  
TTCCCTTATGAATATTGAGAGTTCTGTTATTGATAAATACAAAGGTGTCACTGTTTAAATACACTACTGTGTAGTCTCTT  
TTGCTATGCATTTACTATTTAAAGCGTAAAAACGTAGGTAGCAAGAAGATTATCTTTCTGGCTATTCTTGAAATTCCT  
GTTTCTAACAAGATATTCTGCAGAAGCAAAGATACTACTGCATTGTTCAATGTTTCCACAAAAGGTTAATATAATTGTG  
GGTTCAGCTATCACCTTGACCTTTTCTTGGATCTTTGATCAGAGTTTAGGTAAATATGTTGTTAGGTTTCCCCCTTTTA  
AGTTCCTGAGCTTTTGAAGTAAACAGAGCTGAGATAGGAAAGTGAACAGCAAGGGGAGAGCACAGCAGAACTGAA  
TTAGGTCACTTTTCTAGAGGCTTCTGAATTTGGTACAGTAGGATTCTGTGATCATCTTAAACCTAGCTTTTCAAAGG  
CTATTACTGTTCCATTTTATTCTCTGGCCAGAAAATAAATCAGAAAGCTTCTACATCCTTTTCTCAAAAGCTGATT  
TGATTCTCTATATGATGCCACATTAATAAAGTTTTCCCTATTAATTACCATGATGCCATGCAGCCTTCTAAGATGTTTT  
CTTTAGTTCTTAGTTCTTTTGCAGTTCATCTCCAAGCATAAATTCTCATTATAATCAGTACAGTGAGGAAGATAGAC  
ATGTGTCACTCAGTGAGAAATGCTTGCAGCTGTAACTGCCAGAAAGTTGTAACCTAACTGGCTTAAACCAAAGCCATCCT  
GAGGTGGGAGGCTCCAAGTCACTCAGTGACATTATCAAAGGCGGCTGAGTCTTTTCTCTTCTCTGCCAGCCT  
AAGTGTGTGAGTGTGTTTTCTGTTTGTCTCTGTAATCTCGAGATGTCTGTACAGGTCCACCTATTACATGCAGATAAC  
TATGGCCAGTCAGAAAAGAGGATCTTCTTTTTTACGCTCTTTTAAAGAAAGAAAAAATCATTCCAGATGGTCTCCC  
CTTGTCCCACTTCCCTTCAATGTCTTATTGGCCAAAATGGTTTCAAGATGCTTAAACAAATCAGTCGCTTGGAA  
ATCGTACTTTCATGATTAGCTGAGACAATCAGGTTTCCCTCATGGTGGCTGGGGCTGAGGCCCACCTCCCTGTAAGTAT  
GTGGCTGCAAGGGTAGGTGGATATTTGAATTTCACTGGGGGCTAGTAGGAAGGAATGGCTCTTGGGTAGGCTACCCAT  
AGAGTCAACTACAAGTAAATCAGAACTATAGTATCATAAGTGCTACAGGGAAACATGTAAATGCAGGATGCTGTAGGA  
ACACGCAAGAAGGGCCCCCTGGCCATGCTTGCTTGAGCAAGAGGGAGAGAGGAATGCCAGAGTGGGCTTTTAAATGAAAT  
GTTATCTGATCTGAGATATAAAGCTCAAGAGGAGATAGCCAAGGAAGGGTGGTGAAGGAGAGAGAGGGTATCAGGTA  
GACACAGTATCATGTGCAAAATGACTGGGAATAAGATAAAATGTGGTAGGTTTGGGGAGATGCAGAAAAATAGTTGGCC  
TAAGGTATAGAGCATAAGTTGGGGAGTCAGTCAGAAATAGGGCTATAGAGGTAAACTGTAGATCATAAAGATCTGATA  
AGTCACATAGAAATTTCTACTTTATTCTGTGTCAGTGGGGAGCCAGTGAAATATTTTAAAGCAGCAAAATGACATAATTAA  
ATATGCACTTCAAAAAAATAGTCTTTGGCTGTCTGTGGGAAATTGGATTGCAAACTCTTCAAGACCAAAAGTAGGTAGA  
ACATGTGAGAATCAATTACAATATTTCCAGGAAAGAGTGGTGAAGGGCTTTAAGATAATGTCAAGTGGGGCTGGAGAGAGG  
TGAATAGGTTTGATTGATGTTTAGGGGTTTTGACTAAACAGGACTTGGTTAATAGGTAAGAGAAATAGGGATTAATAAT  
CACTCACATTTCTGGCTTGGACAACCTAGGAGGATGGGAATGACATTTACTGAGTTAGGATATCCAAAGAAGAAGCAGAC  
TGGGGGCAAGGGGAGTGAATTAATTTAAATTTGAATTAAGAGGCTTATTCTGTATGAAATTCAAGAGAAGTATTCC  
AGTCTTAAAGCATTTTCAAATGCCAAGGGATAATTAACCAATAAGTGGTATAGAACAATACTAGGGGTACTATAATT  
TATCAGATGGTCATCAATAAAGCAAGAGAGAGAGATAAAAGAGCTTAAAGAAGAAATTCCTCTCTCTCAGAAAGAA  
TTAGTGGGAGAATCTGATGTTCTTCAAGAAAGAAAAATTTTAGTTGAATCTTGCAAAAAGATTAGACAGATGGGA  
ATTGTGCAAGGGTGGAGGCACTGTACACTACATGAAGCATATTTAAGGAATGATAACAGTCTAGATTGCTAGCAAGCTTG  
AATAGGCAAAATAAAATAGAAAGGTTAGGGAYTAGTTGAATTAGTCAGAACTGTTGAGATTCCAAGAGAAAAACAAAAT  
TCACATTTTCTGTGTTGATCTATTATTGCAAGGTGCATTAGTCAGCTATTGCTACAGTAATGCTACCGAACCAATCAACT  
ACAAAATACCAATGACATTTGCTTCTTGTCTATAGTCTTACTAATGGGTGAGAAATAGTGTCTTCAAGGCTGACAGGTTG  
CCTTCATGCTTGTCTTCTCATGTTTCTCCTTCTTGGACCACTGATCTCCACGGGCGTGTCTTGTGCGACAGTTTACAAC  
TCCCAATGTGGCAAGTAGAAATGTTCAATACTTTGTAAGGCCTCAGTTTATAAGCAGTATCATTTGTGCCACATTTCT  
GTTAGCCACAGCACAATAATRTGACTAAACCAATATCACTGAGGGAGGAGAGCATGAGGAAGAAAAGGATGGTGAATAT  
ATGCTGCAATGCCATAAAACATAATGTAAATAAGATAGCATTGGATTGACCCATAAGCCATAAGATTCTAGAATACC  
AGTGTTCCTCAACTATGGAGTGCCTAATGAGCTTCTTGACAACTCAGGAGAGTAACCTCCATTTGTGTGACCTCCTTTC  
TTTGCTCTTTATTGTGCTTTTCAAAGGGATGACATGAGCCATAAACTACTCATTGGGTTGCTTGGTGCAGAAATCAGAA  
CCAGTTACTTCAGGACTGTCTCATTTTATGATTAGTTGCCTTTGGTCTCATGCAGTGGTATCAGTTTATCTCTTAGAG

Fig. 6.276

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GTTTATGTTCCCTCAATCACCAGCAATACTGAGTGAATGATAAGAACTAAAGCAATAAAAAATGATTGAACATATTTTCC  
TTAGTATGTAGTTATTGGACTTCTTCCAAAAATCCAGCACACTTATAAAAAACCAAACTAAGGCATTTTGTGGTTATTG  
TGCCAAATAGTGTGTCTTAATTAGTCTGAGAATTTATGTGGCCCATGAAAGAGGCATAATTTTCTAAGATTGCACAGC  
TAAGTTACATATCTGAGACTTGAAGACATCCTCAGATTATGTTATCCCTAAATCTCTAATTGCTWTGTAGCAAAAGATT  
TTAGCCATTTTTTTTATTCCTGAATCAAGGATACATAAAATAAGTTGTATTCAATCAATCCAAAAATCCTCAAGCCCAA  
TAATCCTAGTACTTGGAGCAGACCTTATAGTGTGTGTGCACAAGTGGCATGCGTGTACTCTATTTTTAGATTATCTTTT  
AAGAGGGACCGGTGACATGGTCATACAGTACAACAGAAGAACTCACTCCCTGTTTCTCTATAATTCCCATTATCACTC  
AGCACTTGCTCTCCTTTTATTCTGTGGCTTCTGTGCTGCTAGCAGTGACCAGTGACTCAGGAAGGCTGCATATAGTGAA  
GAAAAAGTTGCCTTTCCAGGCACAGTTAGTCTGAGGCGCCTTTTTCACCCATCTCATAGACATTTTCAAGGCCAACT  
CTAGCTTTCTTTTTATGACTACTTTTCCATTCCACACTTTTCTTAATGTTGAGGAGATAATTTGAAAGAAAGGAAAA  
AGAACAGGGAGAACACAAAGGCAAGAAGATGAGCAAGATGCCAGATTAAAGAGTATATTATATTAGTTCTTTCAAA  
ATTAATTTCTGCTGAGACCTTAAATATTAGCTGTCTCAGGAACTTGTGCTTGAAGAACTTGAACTTTTCAACCTTAAGCATA  
AAAATCTTGTCTGAGACCTTAAATATTAGCTGTCTCAGGAACTTGTGCTTGAAGAACTTGAACTTTTCAACCTTAAGCATA  
TTCCAAAGAAATGCCATCTCAGGGAGCGAGGAAAGACATAGGCCAGGTAACATGTCTGATGTATGGAGAAAAGCCCTCAG  
GGTGCCATGTTGGTGGAAACAGGAGCAGAAAGGAAATCAGACTGAGAGAATGAAACTCAATAGAAGCACAATAAACAGA  
CTGAACAAAGTACAGATGGAGTCAGTTCAAGTTAATATGAATGTCCCTGGGCCCTGTGTTTTCATCCAGTGTTAAGTG  
CAGGAAATCATTGGATTCTTCCAAGGATGGGTCTTTAGAGCAACCGACTTTAGAAATTGAATACTTTAAATTTATTTT  
TATAACAAATTTATCAATAGAAAAATAGATTACTTAATTTGTTTATCTTAATGAGAAAACACAAAGCTTTCAACA  
AATAATTGTTGCTGATTGGTTGGTGGGTTCTGTTGGTGAATGAGAAAGGAAAGAAAGGAAAGGAGGAGTA  
GAGGAGGAAAGGAGGTGAGAGAGGGAGATTGAAAGGGAAATAGCGGTGCTCTAAGTTTCAATTTTTTAAAGCCTAGA  
GTTATTAAACAAATTTATGCCCTCAATCAGATTTTATATACTTTTTTCAATCTGTCTATATTAATGTGCTGTATTCAT  
GAAATGATTTTGAGATTTTAAAGCAATGATTGACAATATAGTAGTTTCAATTTAAAGTTTTTACAGTTGCTGCTGACAAA  
ATATGGGTAATGAATTACATCAAATAAGTATAAATATAAGTACACGCTTTGAAGTTAAACTCAGTAAGTTGTTATGAT  
TAAATTTGTTCACTTTATTTTCTCCTGTGTATGGGTTTCTCATAAATGGTAACTTATACCTATGAAAATACAGGGTTC  
TATAAGTCTGAAAACATAGTTATTATATATCTTAACGGACCGAAGATGCTCTCTGATATTATGTATAGCCTGTGTT  
TCCAGACTAAGTGCCAGGCACTATTCTAAGTTAGGCACGATCTAAGTGTGTTTACTGTTTCAATTTAGGCTGTCTGGCTAG  
TGTTTTTCTCACCTTATCAGCATCCCATTTTATTAAAGTGAATTTGCCTAAACACACCTGCACACGCACATGCATGCGC  
GTGCACACACACACACTTTTGCATTTGGAAGCCTGGCTATTATGGAACCTCTAGAACATGAGAGCTCAGGGTCAACCAC  
CAAGACTCAATAAGGTATGGCTGGGGATGTGACCAAGACTATCCTAGCATCTATGGCTGTGGACTGGGTGTCTTCTCCA  
CTGACCCTTGAAGGTAGTTTGTCTTCACTGCTTTAGAAATGGTGAGAGACTTAATCTTATTTCACTTTTCGGTGTGTTG  
TCTTGGTTCTGTAGAACTGGCTTGGAGCTTAGAAGATGCTCTCCACCTGCATTTGGAAGAAATACATTTCTAACACTT  
CTCCTCATATGGAATTTTAAAGTCATTGAAAACTCATACTGCAGCATTGTAGAAACAATTTAGAAACAATTTAGAACT  
TATTGCTTTTCTTAAAGAAATTTTAACTGTGCATGTATAGTTATAGGTCACTCAGATATATTAGTAACATCTTTTTATAGAGACTCTGTTGTTAT  
TTCACCTCACACAAAAGAATAAACACAGAATTAAGGTTGAAATTTACATAAGACCAGTCTAAGCCAGCCATAGCTATGT  
AATTTCCATGATTTTCTCCCAATCAATGGAAATTAAGTGTGAGTGTGAGCCAAAGTCTGCAGACTGTGAGCAAAATGTCTG  
TTTCTTCCCACTAGTGTGTTGAACTTTTTCATCAGTAAATTAACCTTAAAGGTGAGAGATTAGTTTTCAT  
GCATGATGATTCATTTGCTTTAAAGTATTATACCAGGAGAGTAGACTTTTTTCTGACTTTAGAACTCAATTAGAA  
TTCAAATATTAGAGTTTGGGTCAACCTCAAACTATTTTATTTGTTTATTTTCCCTTGACAAAATGTTATTGTTT  
AATAGGGAAGGAGAAAGGCTTGGGAAACACACACACACACACACACACACACACATATATGTACTCTCT  
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GAGCATTTTGAAGCAGGGACTTGATTTTAACTAAATACCTTTTATGTTTGTGATAACCTGTTCCTTTTCTGTGTGTA  
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CGTTGTTTATAAAATAAAAGATTAGAAAAATTCACCTGTGTATAAATTGAAGTACTTCTATAACATAGCAGCCATCT  
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TGACCTAAGCAAGCTCTTTAAGTGTACTCCACCTCAATTTGCTTATCTGTAAACATGGATAATATTATTTTATGCTA  
AACTTCTCTGGTATGACAGAAAAGACCAATGTGAAACAATTCCTGAATTTGTCAATAAACCATGTTACATTTATAA  
AAATGCCTCCAGTGTACCCAGACCAGAGGAATCTGTGGCTTATACTAAACGTGTATTATGTTTCACTTCAAGGTAT  
ATGCCAACAGTTAAGTTAGAAATCCATCCCTTTCTGTCTACTGTGCCAAAGTCAATTAAGTCTTCTTTTACATA  
AGGAAAACATCTTAAAGGAGGAAGTAAGTACGGGACAAACAAAGTTTCAAGGTCTTTTCAATTTTACTGCCTTTCA  
AAAGGTTAAGATCAGAGAACTTAGACATGCATAAGCTTTGGTTTGGAGAACAAATTGAGTCAACCATCGTAACAGAGGGC  
CTGAAAGTATCTGAAGGTAGAAATGAATAGTTTATAGTAAGCCAGTCCACTCTCAGCTCTGAGAACATCCAGCTGCATAA  
CCTCAAGGGAACCTGCGTGGAAAAAATTAAGGGAATTTCTTTGGGCTTTAGAGCTTTTCAATTTCTATGAACAAGGCATC  
TCTGCCCCTGTCTCACCCATATCTCCATTGTCTCATGTAGTCTTCTGCTGGTTCACTGTGTGCTGGCAAGTCAGGT  
TCTTACGCGAGGGAAGAGCTGTTTAAAGTTGTTATGAATAGAGAAAGCAGATTCAAGTCAGACGTAATCTGACTCTGT

Fig. 6.277

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ATGCCTGCAGGGGTTGTGGCCTTTGTTAGTTTATTATGCCTGTAATTTGGGAAGTCATGCTGCAGAGATGTAAAGTGGG  
ATGGGCCTGAAATAGGTCTTGTAATAAAAAGGCAGTTAGGGAAGCCTGCTGGTGTCTGCTGCTGTTACTACTATCTAAG  
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TATTTTCATAGAGGTGAAGAAGGCAGGTGTCCCGTGGTTATTATGACATCTGTTTACCTCATTTCTAGTCACTGTGCCAT  
GTTTCACAGCCATTGTCACTACATTTGGTGAAACTGTTTCTCCGTCCACAACCTGGAACATTGACACTAACCACATT  
CTAGAGTTTATTACATAGAGCTGTGTCTGTGGGTAAAGTAAACAGGTAGTTTAAATAACTAGATATAGTCTTTTCTCT  
TCCATGTAAGCCAGATAATATTTCCACTTCTCCTTCTGAACATGTGAGTACAGTTTATATATAAATCAACAGCAAGAT  
GGAAATTTACTCTGAGCTTTGTGATGTTTTCACTTTAAGATGCTGTAGTTCTGATCCTTTATACATTTATTTCACTTTT  
CCCCTCTCAACCCAGTATATAGCAACACTCACCTGCTCTAGAACATGATTATCAACTGTTTCAGCTATCAATGTAACA  
TTAAAAAAGAGTTTCTATGTTTCAAAGACTAAAGCAACCCAGGTAGTTTCTTTAAACAGAAAGACTAGTTTTCATGATC  
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TGGCAATCTGCCCTTATTATTGCAAGCCCCRTAGCTTGTATCTTCATGTACCTCTTGATCAAGTATTTAAGTGAAAT  
AAAGAGTCTAAATGTTACGGGAGGTGAGTCCAGGCAGGGTCTACGGCCCTCAGTTTTTGTCTTCTGGAAGAAAAAAT  
TCAGCTGAGAGACAGATGTAGATTTAGACAGAAAGCAAAAGTTTATTGAAGCAAGTACATTTGGAAGGGACCAAGTGG  
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TCTCTCTCCATCATACTTCTTTTGGGCCAGCTGTTGGCTAATCGCCGCTGCTCAGTGACTTGGCAGTAATCTGGGAG  
GGGCTGCATGGCCCAATTTGGTGGTTGTAGTTATGCATGTACTCTTTGGGCAATTTCTTTACTGGTCTAGTTGCCCT  
CAGAGGAAGTGCATATACCAGTCAAACCTTTGGCCATTTTGGCCCTTACTGTGCATGCCTGCTCAATTCCTAGGTTTTAT  
CGCAAAGTTGTTGCCTACAAGCTTAAGATGTTTCTGTTAGGAAATTTCCCCCTCCCTGGTGCCAGCCATGACCATCTA  
TCATTCTGAAGAGGCCACCTGACAGTCACAATGACAGTCATTTGACTGTCTCTGACATTCTTGGGGCCCTATCTCTG  
CCCTGCTCATATCCACCTATCTACCTACCCTAACATATTCCCCCTCAAGAGTGTGAGACTCAATTATTTGGGGCTAGT  
GGATGAAGGTCAGTCTCTGTGGCTGCTTCTGCTGAAATAAGGGCTGTATTTGTCTCTGGGTCTCAATCTCTTGCTA  
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CACGACCAGGAAAGTTAGGCATGCAGACACGTGGAAGGGTGAAGGGAATGGAATTTATTATTATTTGGCGGAAAGGA  
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CCCCCACACAGAGCTAAAGTTCCAGGCTCTTTCCCCCAACAAGGCATGAACCTCTCTGGTAGCTTTACCCCATCGTC  
GCAGTGCACAGGCGGGCGGGAGATTCTCCAGGATCCTCCCTCTTATCTGCCTCTGCTATCTACCTGCATTATTGG  
GAACTTGGTTTGAATTTGTTATATCTCTGGAGAAGACAAATTTATCTAGTAGGTTAAAGGCAGGGGCCAAAAAGAGTA  
GACGTATGGAGACAGCTGGTTCGAGCAGGGGAGGAACCATGTGAGCAATGGGAGAGCAGATTTTACAGAGTTCCAGATG  
GAATCTGCTGGGGATTTTCTTTCCAGAGTCAAGGCCACTTAGCGTGGTTCAGAGATTCTCTTTATATGTTCTCTA  
CTTGCCCACTATTGTTGACACAAGTGCAATAGGGTTTATTGATGACAGCACAGACGACTCTGTTTCTGCAAGGAGGTAAT  
CTAGAGCTAGTCTGTTGTCCATGACTGCATTAGCTACTGAATTCAGTGAAGCCTTGAGTTTAGAGATTCTGTTCCAGT  
TCTCTGACCTAGGTCTCCAATTTGTGTAGAGAGGTTTGGAGGGTGACTTTATGATAACTGAATCCTCTGTATGGGGCA  
GCTAATCTATGGCAGCCCCCTAGCCCTACCATTATAAGGCCAAGAGCTCTCCTTTTAAAGATTTGTAATGTTATAGA  
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AGGTTTACAAGTGAGGGGTTGAATAAGTTCTTTAGAATTCCTCACAGGGCAGTTTATTTGTTTAGGTCCATATA  
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GAAACAGTAAAAGGGCCTTTCCATGAGGGGATTAGTTGAGATTTGTAGATCCATCACTTTAGGTTTAAATAAGGACC  
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GAGAACTGGGATATTAGGGGGAATATCAGTCCAGATGTTGGGTAAATATTAAGTGGATACCCATTTTGGAAAGTATA  
TTCTTACTCAAAGCAGTGTGAGGCATTTAGACATTGCCAGGGACTAGTGGGAGAATAGTAATTAGTCCCATAGCAAT  
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GCCTAGAGAAAAGGTTAGCACAAAGTAGGCAGTTCTTGTATTTAAAGGATATTTATAGCACTACCTGTCACTTCCAG  
AGTTTCTCTTGGCTCTGTTCTTTAATGATGATGTCTGATTGGAAGCTGGCCAGAGTGGAGGGCCCCCTTCCAGCTCAAG  
GCTATTATGGATGGGGGTTCACTGGGGGACCTTTTGGATCCAGGGCAGTCCCTCTTCCAGTGGGACTTATCTCCAG  
CTTATCACAAGAGGGGAGGCTGTGTGGGGCTTCTCCCTTTTGGCCCATTTGGAAAATTTCTCTCCAGTAGCCTGGT  
CTTCTGCATCAGTGGCAGTTACCTGGAGGAGGGTCTTAGGAGACCCTGGAGGGGGCTGGTGGGCTTGTAAGCAGCCA

Fig. 6.278.

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ATAGTTGAGCCTGCATCTTGTCCCTGCATTTCTCCTTTCTTAGCCCTGTCTCCTTGTCCAGATCTCAGTTATAAAA  
GACTGAGGAGGCTAATTTGAGGATTTGTGGCATAGGGGCACTGGGTCTAAGGCTGACTTTTGTAAATTTTCCTAATGT  
CTGGAGCAGCTTGGGTAAATTTGTCTTTAGGACTAGTCCCTCAGGAGATTCTGGGTTTAAAGTTTGGTGTGCTTAATAAG  
TTTCCTGTAGACTTTTTCAGAAAAGGCTATAGGATTTCCATTTGGCCCCCTGGTTTATGGTGGCTAATTTATGTAGTTTAGA  
GGCTTGATCTTACTTCAATTTTATTACCTCTATTAGACACAAGAGCCTATGGTTCCCTGGCCCCATATCCCGCTTTGGCAT  
TGTAAGCTGATTGGGGTCCAGCTGGGGAACAGCTGTAGCCCCCTCAGGGTAGTTGGCATTTCAGGTGTAAGTCATT  
TCGACAGTGGATTGCTGCTCCGAGATGGTCTGTCTTCTCCTTTGTAAAAGGGCTTGTCCCAGGAGTACATTTATGTCC  
TTCCAAATTAATCTAAATGTAAGAGCCAATTTGGGGAAGCCCTCTATGAGCCTTTTGGGGTCATCTGAGAACTTTTTTA  
GGTTTTTCTAAGTTGTCAAAGTCGTACATGGAAAAGGGGATCTGGACCTGGACGAGTTCAAGTTGGCTCACTTACCTC  
CTACAAGCTTGGAGAGGAGAACTAAGGAGCCCGGTGTAAGAGTGGGGCAATTCCAAAGGTCTGGGAGTGGGATAAATAG  
GGGAGAGTCCAGGGGTGGCTGTCTCCTCTTTTCACTCCAAAGGAGGAGGTAGTTTTTCTTTTGGCTTCTGGAGG  
AAGAAATGTTGGAGAGGAATCAGCAGAGGAGTCTCAGGGCCGATGCAGGGCCCTGGAGGAGATGGCTAAGCATAGCTA  
GGATGTGAGGTTTGCCTTACAAGCTTTACGAGGATTAGGGTCTTCCCTTTAGGCCATAAAGGTTTGTAAATAGGGGACC  
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GTTGCTCAGCTCAGGGTGGCTGTCTCCTCTTTTCACTCCAAAGGAGGAGGTAGTTTTTCTTTTGGCTTCTGGAGG  
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GGATGTGAGGTTTGCCTTACAAGCTTTACGAGGATTAGGGTCTTCCCTTTAGGCCATAAAGGTTTGTAAATAGGGGACC  
TCTGGCTTTTGGCCCTGATAATGGCAGAAAAGGTCTAGCCGGAGAACTGGTATTAAATTTGTACTTCCATCTCTAGCC  
AGACTTCTCTGCAATGAAAAATTAGTTTTTCAATTTAGGGTTGGTGGTGGATTATCGCAGATTTTAAGGATGCA  
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GAGTCCCTTCTTCTTCATCTTTTTCTTTTTCTGTT  
GTTGCTCAGCTCAGGGTGGCTGTCTCCTCTTTTCACTCCAAAGGAGGAGGTAGTTTTTCTTTTGGCTTCTGGAGG  
CAGCCTTCCGAGGAGCTGGGACTACAGATGCATACCACCAAGCCAGCTAATTTTTGTATTTTTTAGTAGAGACGGGGTT  
TTGTCTGAACTCAGGTGATCCACCCGCTTGGCTCATAAAGTGCTGGAATTATAAGCATGAGCCACCAGCCAGCT  
GAAAGCATTCCTTCTGATCCCTTATACCTTGGATCAGAGTAGTGTAGAGGAGTCCCCCATTCATCTCTGGAGTTCTG  
GAATAAACAGTGTATTACAGGTACCACTAACCCTGGTCCCACATTTCCCTCCAGGACCAGCCTTCATCTCTCTGCTAA  
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CCTAGCCAGTGTAAAGGAACTGGGCTTCTTCTCTGAGACTAGCAGTGTAGGTCCCAGTATATGTTAAGAATG  
TAGATGGTCAGAGGAACAGAGGAAAACCTGCATCTGAGTCCCTTGTCTATCCCTCTGTGGATTCTTGGGGAAGCATGG  
AAAACAAGTATTTAAATGACAGGACAATCCATCTGCCACCCGTGGGAATGGTAGAAAATAAGGGATATTGATGGAAGG  
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GGAAAAGTCCACTTTGGTTAAGGAAATGAAGGTCTCCAGTCTTTGAATGGCCTAGGCTCAAGCCCTATCACCTTTGTGA  
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CCAGGATGAACTGAGGAATCTGCTAGAGGGAAGAGTGACCAAGAGAAATTTTTCTGGAGATGGGCTGGTGTAGTGAGACA  
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AAGCTGCAATCTGATTCTGACACCAAAATGTTACTGGCAGCGGGTTTGGGAGGATACAGACTCTTGGTTCTTATTG  
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GGACAGAGCAGCATGTGGAGGCTCGCATTGTGAATTATAGCTCCAGATTGACTGCAAGAACAACACAGCAACCTTGAGA  
GGACCCACACACCTCTGAAGGAAGCAGACTGCTCTTGCAGGACCTGGGAAACACCCCAATACTGTGAGTACCCCAAC  
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AGGTGCAAGGGGTAAACTCTACAGGGAGAAGAAAATCTCTAGCTGAAGTTTGTAAATTTGAATGGGGTGAGAAGCC  
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GGGTGGGAGACACAGTGAGAGTGAGACTAGCCATTTGGTTTGGGTTTGGCTGGAAAGCAGAGTGAGGCTGTGACTGCTG  
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TTCTCTCCCCATACTACACAGCTGATGCTCTCTGGAAGGCACACCTCCTGGCAGGAGACAGCCAGCAAAAAATAGA  
GCATTAACCAAGCTAAGAACCCCAAGAGCCCATTTGCGCCCCCAACCCCTACCCCTGCACCAGAACAGGCA  
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AGGAAAGATACAGTCTTTTTTCAGAAAAACAATGCTGAGAAAATTTGCCATTACCAAGCCACCCTACAAGAACTGCTA  
GAAGGAGCTCTAAATCTTGAACAAATCTTGGAAACACAACAAAACAGAACCTCTTTTTTTTTTAAATATTATTATTA  
TACTTTAAGTTTGGGTACATGTGCCATGCCGGTGTGCTGCACCCATTAACTCGTCATTAGCATTAGGTATATCTCC  
TAATGCTATCCCTCCCCCTTCCCCCAACCCACAGTCCCCAGAGTGTGATGTTCCCTTCTGTGTCCATGTGTTTC  
TCATTGTTCAATTTCCACCTATGAGTGAGAACATGCGGTGTTTGGTTTTTGTCTTGGCATAGTTTACTGAGAATGAT

Fig. 6.279



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GATTTCGAATTTTCATCCATGTCCCTACAAAGGACATGAACATCATATTTTATGGCTGCATAGCTTTCCATGGTGTAT  
ATGTGCCACATTTTCTTAATCCAGTCTATCATTGTTGGACATTTGGATTGGTTCCAAGTCTTTGCTATTGTGAATAGTG  
CCGCAATAAACATACGTGTGCATGTGTCTTTATAGCAGCATGATTTATAGTCCTTTGGGTATATACCCGGTAATGGGAT  
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TGCGGCATTATTTCTGAGGGCTCTGTTCTGTTCCATTGATCTATATCTCTGTTTTGGTACCAGTACCATGCTGTTTTGG  
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GGTGATGCAGGCTCTTTTGGTTCATATGAACTTTAAAGTAGTTTTTCCAATTCTGTGAAGAAAGTCATGGGTAGC  
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CTTCATGTTGCTGTGAAGTTGGATTCTAGGTATTTTATCTCTTTGAAGCAATTGTGAATGGGAGTTTACTGATGATT  
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TGAATGCAATGGTACCTCACATTTTCGATACTGACATTGAATGTAAATGGCCTAAATGCTCCACTTAAAGATGTCAGAAC  
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CAAAACAACTTTAAAGCAATAGCAGTTAAAGAGACAAAGAGGGATATTATATAATGGTAAAGGCCTTCTCCAACAG  
GAATATGTCACAATGTCAAACATATATTTCACTTAACAATGGAGCCCCCAATTTATAAAACAATTACTAACAGACCTAA  
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AATTGATAGACCATTAGCAAGATTAACCAAGAAAAGAGAGAGAAAATCCAAATAACTTCACTAAGAAATGAAACAGGA  
GATATTACAGTACCACTGAAATACAAAAGATATTCAAGGCTACTATGAACACCTTTATGCATATAAATAGAAAA  
CCTAGAAGAGATGGATAAATTCCTGGAATAATACAACTCCTAGCTTAAATCAGGAAGAAATGATAGTAACTGAAACA  
TCAATAACAAGCAGAGAGATTGAAATGGTACTTAAAAAATTATCAACAAAAAGAGTCCAAGACCCGACAGATTACAG  
CAGCATTCTACCAGACATTCAAAGAATTGGTACCAATCCTTTTGACACTATTCCACAAGATAGAGAAAGAGGAACCTT  
CCCTAATTCGTTCTATGAAGCCAGCATCACCTAGTACCAAAACAGGAAAGGACATAACCAAAAAAGAAAACCTACAGA  
TCAATATCCTTGATAAACATAGATGGTAAATCCTTAACAAAATACTAGCTGACTGAATCCAACAACATATCAAAAAAGA  
TAATCCACCATGATCAAGTGGGTTTCATACAGGGGTGCAGAGATGGTTAATGTACACAAGTCAATAAATGTGATACA  
CCACATAAACAGAAATTAATAACAAAAATTCATGATCATCTCAATAGATGCAGAAAAAGCATTCAACAAAAATCCAGCAT  
CCCTTTATGATTAAAGCTCTCAGCAAAATCAGCATACAAGGGACATACATTAATGTAATAAAAACTATCTATGACAAAC  
CCACAGCCAACTGTAATGGAATGGGGAAGTTGAAAGAATTCCTCTGAGAAGTGAACAAAGACAATGATGCCACT  
CTCACCCTCTTCTTCAACATAGTAATGGAAGTCTAGCAAGAGCAATCAGACAAGAGGGAGAAATAAAGGGCATCCAA  
ATCGGTAAAGAGGAAGTCAAATGTCATGTTTGTGATGATGATGATTATTTACCTTGAAAACCTTAAGAACTCTCCA  
GCAAGCTCCTAGAACTGATAAATGAATTCAAGAAAGTTTCTGGATACAAGATTAATGTACACAATCAGTAGCTCTTCT  
ATATACCAACAGTGACCAAGGGGAGAAATCAATCAAGAACTCAACCCATTTTACAATAGCTGTAAAAAATAAATAA  
AATACTTAAGAAATATACCTAACAAAGGAGTCGAGAGACTTCTACAAGGAAAACCTACAAAACACTGCTGAAAGGAATCAT  
AGACAATACAAAACAAATGGGAACACATCCCGTGATCATGGATGGGTGAGAAATCAATATTGTGAAAATGCCCATCTGCCA  
AAAGCAACCTACAAATTCAACACAATCCCATCAAAATAACACCATCATTTCTTACAGAAATTAGAAAAACAATTCTAA  
AACTCAGATGGAACCAAAAAAGAGCCTGCATAGCCAAAGCAAGACCAAGCAAAAGTACAAATCTGGAGGCATCACACT  
ACCTGATTTCAAATTATATAAGGCCATAGTACCAAAATGGCATGGTACTGGTATAAAAAATAGACATATAGACCAA  
TGGAACAGAAATAGAGAACCCGGAGATAAACCCAAATACTTACAGCCAACTGATCTTCAACAAAGCAACAAAAACATAA  
AGTGGGGAAGGATAACCTTTTCAACAAATGGTGTGAGATAATTGGCTAGCCACACATAGGAGAAATGAAACTAGATC  
CTATCTCTACCGTATACAAAAATCAACTCAAGATGGATTAAAGGGCTTAAACCTAAGACGTGAAACTATGAAATTTTAG  
AAGATAACTTTGGAAAAACCTTCTAGACATTTGGCTTAGGCAAGGATTTTCATGACCAAGAACCCAAAGCAAAATGCAAT  
AAAAACAAAGATAAATAGCTGGGACCTCATTAACCTTTACGAGCTTTTGCAGGGCAAAAGGAACAGTCAGCAGAGTAA

Fig. 6.28c



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CAGACAACCCACAGAGTGGGAGAAAAATCTTCACAATCTATACCTCTGACAAAGGGTAGTATCCAGAATCTACAAGGAC  
CCCAACAAATCAGTAAGAAAAACAAACAATCCCATCAAAAAGTAGGCTAAGGGCATGAGTAGGCAATTCACAAAAG  
AAGATATACAAATGGCAAGCAACATATGAAAAATGCTCAACATCACTAATGATCAAGGAAATGCAATCAAAAACAC  
AAAAATGTGATACCACCGTACTTCTGCAAGAATGGCCATAATAAAAAATTTTAAAAACAGTAGATGTTGGCATGGAAG  
GGGTGATCAGGAAACACTTCTACACTGCTGGTGGGAATGCAAACTAGTACAGCCATTATGGGAAACAGTGTGGGGATT  
CTTAAAGAACTAAAAGTAGAATACCACTTGATCCAGCAGTCCCACTACTAGGTATCTACCCAGAGGAAAAGAGTCAT  
TATTTGAAAAAGACACTTGTACACGTATGTTTATAGCAGCACAATTCACAATTGCAAACTGTGGAATAACCCAAATG  
TCCATCAGTCAATAAGTGGATAAAGAACTGTGGTGTACAGATATATATACAATGAAATACTACACAGCTATGAAAAGG  
AATGAATTAACAGCATTTCAGTGACCTGGATGAGATGGAGACTATTATTCTAAGTGAAGTAACCTCAGGAATAGAAAA  
GCAAACATGATATGTTCTCACTGATATGTGGGATCTAAGCTATGAGGACACAAAGATATAAGAATGATACAATGGACTT  
TGGGGACTTGGGGGGAAGAGTGGGAGGGGGGTGAGGGATAAAGATTACAAATATGGTGCAGTGTATACTGCTTGGGTG  
ATGGGTGCACCAAAATCTCACAATCACTACTAAGAACTTACTTATATACTAAATATACCACCTGTACCCTAATAAC  
TTATGGAAAAAATTTTATAAAAAAGTAATAGATTTAAGTCAGAAAGTTTATTGAAGCAAAGTAAAGTACATTCCGAAGGG  
ACCAAGTGGAAAAATTTAAAGATTGAGTGCCCCGCTTGATCATTGGTTCAAGGCTTTTATAGAGTTACTGTATCCTGAT  
TCTTCTGATCTCTCTCCCTCATCCTTCTTGGGGGAAGTGTGGCTAATCCTTGCATGCGCAGTAACTTGCTAATATCT  
GTCAGGGGCTGCATGTGCCGTTTGGTGGCTGAAGTGTGTGTATGCTCTCCATGACAATTTTTCGTTACTGGTCTAGTG  
CCCCCAAAGGAAGGTACATATCAGGCAAACTCTGACGTTTTTGGCCCTTCTTGAGCATGCTTGGACATATCCCCGAAGG  
AAGGCCAACTCCGCCATT'TTGGCCCTTACTGCAGATGCCTGGTGCATGTTTGCTTAGTTCCTGGGATCTTATGAGGAAG  
TTGTTGCTCATAAGCTCAAGATGTTTCTGTTTGGGAGGAAATTTTCCCTTCTTGGTGCCAGCCATGACCATCTGTCA  
TTCCCAAGGAGGCCCTGACAATTGCATGACAGTCACTGACTGTTGCCTGACATTCTTGGGGCACTCTCTACCCTG  
CTCATATCTGCCTATCTGCCTAAGTAACATGAAGACATTTTAAACCTTCTCAGTGGTCTCTCCATTTCTCTCTCTCT  
TCTCCCCCACTTTCCCTTCAAACCACTCAAACCTCTTTCTATTCTACTCAGCAAAATGGAGATTAAACCTGACTCA  
AAATGTGTCTTTGCCCACCCCTGCCTTCCCATTTACAGCGCAGTCTTTCTTCAAACAGATTTAGATTACAGAGGAA  
AAAAGGCAGAAATCTCTTTTACCGGCTTCAGACACTTAAAGAAAAATCTGTCTTTTCTCTCTACAGCTTAAATATTT  
GCTATAATAAGTGTAGATTCAAGAGCCATTGGACATATCTGGCTTTTAAATAGTGTGACTAATGACCAACTTAACTT  
AGATCTTTGAATCTATGTGTGGTGTATGATATATATTAGTTTTCATCTGAGGTCTAGCTCATAACTCCCACAGCCCTT  
GTTACAGTCTTTTGTATAATGTTGGGTGTGTTAGGCCTCAGGGGAGGCCCCCTGACCTTCTCCTTCTCTCTTTCACC  
TGTTCTCTGCCTTCTGATTGTGGCTTTTAAAGACCTTCCCCAGAGAGAGTACTGCCCTATACCCTGGGGGAAGGAATGCT  
GATGTCATGAAGCCTCCATAAAATCCAGAAGGACAGGGTTCAGTGAGCTTCCACATAGCTGAACACTTGGACTTTTCA  
GGAGGTGGCAGCCAGGTAAAGCATGGAAGCTCCACACCCCTTCCCCATACCTCACCCTATATGCTCTCTTAAATC  
GGTAACATTTGCAATATCTCTTTATAATAAACTGACAAACATAAGTAAGTGTCTCCCTTGGGTTCTGTGAGCCACTCCAGC  
AAATTAATTGAACCCAAAGAGAGGATTATGAGTATGCCAACTTGGAGGTGGCCGGTTAGAAGCTCCAGAGGCCCACT  
TGTGACTGGTGTGGTGGGGGAGTCTTGGGAAGTGAACCTTCAACCGGTGGGATCTGACATTATCTCCAGGTAGACAG  
CGTTGGAAGTGAATTACAGGACACCCAGCTAGTGTGGCTGCTTGGTGTGGGGGGGAAACCTCACATGTTTGTTCGTAG  
AAGGCTTCACTGTGTGTTGATGATTTTTGTGGTGTGAGAGTAGAGGAAAAATGCCATCAGGGAGAGT'TTCTCTACACCC  
TATAGCTCCTAGATGCTTTTTATTTAAGACATTCAAACCTTGTGAAAAACAACAAACACAAAAATCTTTTTATTTAAG  
ACGGTCAAACCTTGTTCAAAACAGCACAGACATTAATCGGAATTTAGGATTTATTATTGATTAAATGACATTATCTTC  
AGTCTGTTCAATTATTAAAGTATATAAGTCAGGTACACACACACATGTATGGGGAGTGTGGGAGTGTCTGCATGAA  
GTATACTGTGCAAAAATATACTCATTTCAAAGAAACACTGATTTAGGCCCTGGCAAATAAGGAAACATTTCTATTCTT  
CTAGAAATAACACATTCAATTTGCCAACATCTGATCTATCCATAGACCTCTTAATACACACATGAAATAATAAGTGTA  
TTTTTCATTCAATTAATAAGCATGTGATTACGTGACACTGTAGCCCTTTTTTTTTTTTTTTTTTTTTTTTGGAGACA  
GACCCTTTTTCTGTGCGCCAGGCTGGAGTGCAGTGGTGTGATCTCTGCTCACTGCAACCTCCACCTCCTGAGTTCAAGC  
GATTCTCTGCCTCAGCCTCCCAAGTAGCCGGGACTACAGGCACGGGACACCACGCTGGCTAATTTTTTTGTATTTTT  
TGTAAGACAGGGTTTTCGCCATGTTGGCCAGACTGTGCTGAACTCCTGACCTCAGGTGATCTGCCACCTCGGCCCTCC  
CAAAGTGCTGGGATTAAAGGCGTGAGCCACTGCGCCTGGGCGAGCACTTTTTTTTTTATTCAGTGT'TTCTCGTTAATCTA  
CCCCATGGCGTTTTATTTCAGGTTGTATGTATGCCAGAGATGAAAAAGGCAAATGACAGAAGAGCAAGTATATGGAGA  
AAGATAGGAGGGACTTGAGAAAACCTTGGCAATTTACTAAAATGAAATGGCATTGTTTCCATATTTACCAAAAACAGACA  
AACAAACCTAATCATTCTCTCATTTTGATCAGCTTTCATGTATATTTCTAGGCCAATCAAAATCTTCTTTGGTGTG  
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TTAGGAAATTAAGAAACCTAAGTAAAGGAGTAGGGAAGTGAGACAGGAAATGGAAGGATCTCTGAAAAATAACATC  
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AGAGTTTCCCAACTGTGAGATGAGGAAGCTGGGGTGCTTTTCAACAACTCTTCAATCCATCACCTGCTTCCGGGGGTCA  
TTAACAATCCCACTCCAGGTTATTTATGCTCAGGCCAGGCATGTAAGTGCAGCCAGAAAATAGCCCTTGCCAAGAC  
TCACAGGAATTAACAACTTTCAGGCAAGGAGCTACTGGTCTTTGTAAATAAAGCTTTGAGAGGCGGGTATTAGAGGC  
TATGGGCACCAATAACTTCCCTTATGTGAGTCAATAACACAAAGTTAATTTTGTGTCATGTGTATACAAGTATTTTGA  
ATGAATGCTTCTCTTTGTTTGTGTTTGGAAAAATTAACAAAATATTATTGTTTTTGTATTGGTATTTAAACATC  
TGAATATGTAACATCAAAGATGATATTAAAAAGTATAAAGCAAATATACAAAATCAGATGTGCAGTTACATGTTTAC  
TTGAATCTCTCTAGACTACATTTGAAATAGGAGCTTCCATAGGGGAAATTTAAATTTTTTTTACAGTTGTTTAAAT  
TATAATGTGCTTTAAAAACACTTTAGCATATCATAAACCTTCAAAACAAATGAGTAATCATCTTCTGAGATCCATAGA  
AAATGTTTCTTAAATGTCACTTTCAATTACCCTTCTGGAGCTAACTTGCAAAACAAATGTGTTTCCACCAACTGAAAT

Fig. 6.281

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ATGTTTTTACCAAATTTAAGATAATCTGTGGTCAGTGTGAGCTTTGTCTTGATTAGGAGGAGGAAAGCAAAGTTCCAT  
TTATGAATACTTTGAAAATTTTCAGAAAATCTCTAAATTTTTCAGCAACCAGGCCAAAAGAGAGGCCTGGAATCCCA  
AGGTGAGAGGAACTTTAAAAGTTACACTTATGGCCAGGCACGGTGGCTCACACCGTAATTCAGCACTTTGGGAGACT  
GAAATGGGTGGATCACTTGAGGCCAGGAGTTCAGGACCAGCCTGGTCAACATGGTGAAACCCCATCTCTACTAAAAATA  
CAAAAATTAGCCTGGTGTGGTGGTGCATACCTGTAATCCCAGCCACTTGGCAGGCTGAGACATGAGAATCACTTGCACC  
CAGGAGACAGAGGCTGCAGTGAGTGAGATCATCCCACTGCCTCCAACCTAGACAACAGAGTGACACTCTGTCTCAAAA  
AAAAAAAAAAAAAAAAAGTTTCACTTGTGCCCTTGGGGTGGCTGCCTGCTATCATATTTTTTGTGTGTCTTCTACCCC  
AAGCTCCAGTACCTCCCTCACAGAAATCACCTCTCTACCAACCCCAAGGGAACCCATTCCATTTTTATTAGAGAGTT  
CTTCTTTACATGGCCTCAAGTCTTTTCATCAAGATTTACTGATAGAATAACAGTAAATCCACATTACTCCAGGTGTCTC  
TTTGCCCTTACCTAGCCTTTGTGTCTATGCCATTCTTCTCAAGGAAATTCGCTTCCCTTTATCAGCTTTAAAAGTCCATA  
TTTGGGATCCCTCTCTGGAACATTCTCTGACTATCCAGCCAGATAATTTTTTCTCTGCTTTCTCATTATAACA  
TTCATGATCTGTGTATTCACTTCACTTCACTTGTGCCCAATATTTCTTGAGTGCTTCTAAGTTCAGGCACTGTTCTA  
GGTACTGGGGACATAGAGGATAGAAGCCAGTCAAATTTTGCCTCACTGAACTTTACTTTAGTAGGTAAGAATCTAT  
AGTTTAAAAAAATTCACATATGAGGCCGTGTGAAGCAAATAAAGCAATAATGTGGTGGTTTTTCATGGACATTATGTCT  
TTCACTACCCGTCCTCTTTTTGTGTAACTCTCTAAGGCAAGTATAACCTCATCTATACATTAGTATTTATTTACCA  
CAAGGACCATAAGTATTTATTGATATCTTCTAAGTATGTGATAATATTTCTAAATAGATAGTAGATTTAATCATTTG  
GGATTTATGTGAAGTTGGATTAAATAGATAACATGATAATTTACATTTAGTATTCATGATGGAAGGACACATTTTCTCACT  
ATAGAAGCCTAAACAAATGTCAATGTTGATAGATTCTTTATAGGATGTTAACTCTGAAGCTGTGCGTGAAGTGTGT  
GAACTAGTTTCACTTTCACTTGTATCCTTTTGAATCATGACAGATTTTGTAGCCCTTAATCTTCTGCAATCTTTGT  
TGATCCCTCCTATTTCATCTCATAAGACACTTATCTCTCTCCAGAAAGATCTGAAGGGTTAAGTCACTTATTTATAC  
CTAATTACAGTGAGCCCTGTGTGGATTTTAAAGGGATAAAGGAAGTATCAGATCTCAGTTAACTTATGTACTGTCTA  
CAGTGCCATAACATGACACAGGATGACTCAGTTAAGGAGAAAAATACTCCATTTATCAGCACAGAATCTTCCCTTTAA  
GCTATCATTTGGTAGCTAACCTTGCCTAACCTTGCAGTTTAACTTGCCTTTTACGTGCATGCACGCGTGTGTGTGTG  
TGTGTGTGTGTGTGTACTAATTTCTAAGTGTACAGCTCTGAATTAATATTGGCAACATCAATATTCCTGTATAA  
TGAAGAAGCATGGTCCAAGAGACTTGGATGTGACCTCTCTAAACATCAACTTACAGCTGCAAAATAAGGAATAAGTGT  
AATTATTCCTTATTTGTAACAACTACCTTACAGTGTGTGTGTGAAGATTAGAAGAGAATATATAGTGAAGTACCCAGT  
GGACAGTAGGTATTGAATAAATGTTAGTTTCTTCCACCTTCTCTGGCTTATGTAACAAAATTACTCATTCTACTAGTC  
ACTCAGACTTTAGTTAATCATTAGCTAAAGAGTAACATGCAGGATTTTTTTTTTAAATAAATGGCTAGGATTTGGTTTT  
ATGCCCTGGATGGAATAGGCACCTTGCCTTTTATCACAATTCAAAATTCCTCCTGAAGGCCCTGAAGGCCCTGAAATGTTA  
CCATTGACAACTATCCCACTGTATGGTACTATTATTTATTAATCTTATTAACCTTATAAAATATTAATAAATAAAGTA  
AATATTACCTTACTGATGCATTAGCCACTCAACATAAATGAGTTTCTTGGAGATTAAAGCAAGTATTCCTGTATAGC  
CCAAACAATGGCTAAAAGGAAACCTAGTAACACCCCGACCCCAAACCTGTTTGTGTAGGCCAGTCAGATTTTTTTTTT  
TCATTTTGAATTAGCATCACGATTGAAAGTGAAAGATCTCACATATAACTTCACTTTCTCTGTACAATTGAGAAACG  
TTGGCTATGTTGGCTCTCTGAATAGCAGCTACCTCCTTCAAGGTTTGTATTTACAATATTTCCACCCCCATGAGTCC  
TTATTATCCTGACACTGAGGACAAATATGAGTTGCTGTCCATCAGCATTCCAAAGCTGTTTTTTTTTTTTTTTTTTTT  
TCTTACACTTAGCCTACTTCACTCCCTAACACCACAGCCTGATTTCTGAGGGGGCCTGAGGTAGGAGGAGGAGAAATGG  
AGAGCACTTTCTGAGAGCCGCCTTTTAAACAGATCATTAAAGACAGATATTACATGACGGTTGCTTACTCTCTGA  
TGAAAACTACAAAAACAGAATACACAGGGAAGGTAATCTGAAGGTGATACCTTTTTCTTATGATCCTTGGCCTTATAAC  
CACTAATCAAGCCTGAGGGCCGAAGTTCTGCTCATCTCTGCTGATGTTACGAAGTACAGGCTAGCAGAGGCAAC  
AGGCAACCTGGGCACCTGAAGAGCTACCTGGATAACCTAGAAGAACAGTAGGAGGTTAAAGATGAGGACAAAGTCTATCA  
AAACAAAAGCCTGTCAAGACCAGAAAGAGAAAGTCACTTTTGAATTTACAGTTTGTGTGGGCTGACACAAAGGCCT  
CAGTTAACACCAAAATACAATTCATAGACTTCAAGTTTCCCTCATATTTTTTCTGGGTCACTATTCCAGAGTTGAGAA  
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TTGGTTAGCTTTTCTAAACAATGGCATTATATAGATCTGATTATCCCAACAAAATCTTCAAATGGTTTCATGGACGCT  
TTGTCAAGCTTTTGTGCCACCTGAGAGAAAAAAGATAAATGGGGAGGTATAATGTTAATTTTGTAGCCTTTGCTTAAT  
GTTTATTTTTTGAATGCCTATCATTTTCTATCAGTATCTGAACTCCATGGATTTCTATTAGCCTTCCCAATAATTAC  
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CATTTTCTCTAAGAGCATTCTATTAACTGTTTCTAGTTATTAGCTTTCATAAAGGCACACAGAAAATGTTTCTCTAC  
AGCCACAAATATTCCTAAAGCAGAATCATAGTAAACAGCTGTGATAATGTTTTTATTCATTCCAGAATCCTAATGATTG  
AACAAAAGAGAGACAGTCTTAAGAGTTAATCTATTGAGTCCGTGACTGCGTGCATTGTTCTTTCAAGTATTTTACCT  
GCACTATTTTAAATGTAATTTCTCCAGCCACTCTGATTTCACTTATTTTACAATTGAGGAGACTGAGGCATAGAAAACATA  
AGCAATTTGGCTGGAGTAAGGGCCAGTGGGACTTATACCTTGGCGGTCTGCCTACAAGGTCTTCTCACCACCATCT  
GACACTGCTTTCTGTGTAGCCAGAGTGTGAGCCTCAGTGCTTCACTTGAAGTTCAGGATCTATTTAAAGATGGA  
AAATATAGTTACATTATGTACCATTTGAGATGCAGAAAGACAGGGCCACCATTTTGCACAATTCTGAAAGCACAAATTC  
ATGCTGTGGTTTGTAAAAATGGTACTCCCTAGAGTTGGGCAATGGACAGCTCACACAGAGATGCAGTGGCCCTGCTAAA  
CTAATGCCTTACATAAAGAGTTTACTCTTCACTCCCTTAAATGATTCTTAGTAACACTGGCTGACACACACACAAAA  
CAGTTTCTAAGTAGGTCTGTCCGCATACTATGATCACTGGTCAACATTAAGTTTCCACAATTAATTTTACATAATCCAA  
AGACTGCCAAGCAGTTTATCTGGGTAACTAACACTCTGTGATTCATTATTCTGCTTCCAGTCTATGCTCAATCCAGAATAG  
TTGAGAAGACAAATGTTTCTCAGAAATGATCTCAAGGAGTTGGGAGCTGCTTATACGTCTAATCCAGAATAG  
GTGAGCGTGGTGGTGACCTTTTCTACTGTTGTCAGAGCTGAGTATGAAGAGATGACTCACAGTCTTCCAATGCAAC

Fig. 6.282

ACAGGTGACCCCTGCAGCCAGATATTTTGCCTTCAGTGGTATGTGACTCCCATGGGGTCAGGAGAGTATCTCAGACATTGAA  
ATTTGACCTAATGGCCTACCTACCTGCACACGCCACCCCTGCCCACTTACAGAAGGGCAAGAACTCTGCATTACTGAGGCC  
TTGTTATTATTATAGTTCCTATTTAGGTAAGAACGCAATGGAGAAAAAATGCATTGGTTATTGGGCCCTCTGTTTGAAT  
ATCCTGTGCTTTTTGCCAAACAATGCATTCTACATAATCTTAAAAAACAAGTCCATTTCAAAGAACAAAAATAATGAC  
CATATCCACTGAGCAATTGAGCAGAATGGGAATCGGAGTTTTAAACTCTGATATATCTGTTTTCTTAGGGCTGAAATC  
TTCTTTTCATGGTTCTAGTTTTCTCTAATTGAAATAAGAACCTAACCCCTGTTCAAAACTACATCTCTGGGAATGAGTGAA  
AAATTAATGATCCTCCTATTTTGTGGATCAATAATGACTCTCATCTGGTGGGGCCACCAGCAATGCTATTCTTCT  
CAGACTCTATCTTAGTTCCTAAGCCACTCACCAGGTATTTAAAAAATGATTTTAACACAACCTAGAATCATTTAAATAAC  
TGTATTTTTTAAAGAAAGCCATATTATTGCTTTAGTTTGGTCATTATATATCCAAACCTTGGACTCATCATCTTGCAAT  
CTCATGTGTTTCAGTTATTCCAGAGAAAAACATTAAGGAGAATTGTATTCTTCTCCAGCTAAATTTTAGGTCCTCAAAG  
CTGGCAACCACAATTTATGCTTTCTAAAAATCATCTATGATACTAAGTATGAGCTGGATCATGAATAAAACCCCTTGTA  
CAATAAATGCTTGATGACTTACTTCATCTCATTAGCAAGGGGAGGTAACTCATAATTATCAAGGTACTACAGGAAATAG  
GGCACTATCTGGAAATGCTAAATACATCTCCTTGATGAATCACTTCTTACCAGAATTCCTTTCTTTCCAGATCCCAC  
CTCCAGGGTCTGTGGTCCATACCAGGCACATACCTTCTCAGGGGCTACAGCCTATGAGCGTCTCATGGGGCTATGAAA  
CCATTTGAGACCTGAAAAATGAAGTAATTGAATCAAAACAGAAAGCTGCAAAATGAGGACTAACATTTAATTAATGTT  
CAAAGCATAAGATTATGTGCATCTCAATAATTGTCAAATGAGTATTCTTAAACATTTTACTAAATTAACAAAACTTATGT  
CTGAGTTTTTTTTATTACAAAGTATCTCCAAGTATGCTGGATGATTGCAAAGAAAAATCAAGGCCAGTCATTGGTTAAAT  
GAGTTTAATAGTAGCCACATAATTTCAAAGCCTAAATTATAAAGACCCCTCCAGACTGTTGATAGCAAAAAATAATCTA  
CGTTGTGGAAGTGGGTCCATGTTAATATGTTAGATATAAGTAGTGAGGCCCTAAAAAGGTATTAAACATCTTTGCTTA  
AGGTACTACCTATTGCAAGATTGTTATTTTAAAAATAGCTTATGTTTTAAATTGTTATTGCTTTTTATCACTCTAATA  
AGAATTTATAGTTGCTGTAAGATAACAAGAAAAAGGTTAACTATCTGCAGAGATGCCTGAGAGTCAGCCAGGGAGTAAC  
TTAAATCCTGCAGGAATGCTGACTCACTGAAGACTGTCACTGAAAGTGAAGGCTTAAATTTTATGTTCTTTGGGTGGGAGAA  
TTTTTTCATATTCTTTCCCATGTTGAATAACAATCTGCCCCGAAAAAGGGAGTATTTTGGCATGATCTCTTTTTTGCT  
CTTTTGCATTTTCCATTTTCCATAAAGCACTTTTGCCAAGCACCATACTTAAGACTCAACTTTTTTGCAAAAATATCAGA  
CAAAGCACTGTCTTTAAGAACACAGAGAACACACTAGATCCCTTCTTCTGAAAAATCACTGTTCTATGTTGTTTGTGGAT  
ATTTTTTTAGCATTCACTGCATGCCTGGAATGAATAGGCTGTGTTTCTCCCCAAAGAGCACAAATTAATATACAAGGT  
CAGGTTAAATAGTTAAGTCTGCTTTCTATCCCTTATACAGAAGCTATCCATTCAAAAAAAAAAAAAAAAAAACTCTTT  
TACTTTTTTTAATTTTAAATTTTGGTGCATACATAGTAGGTGATATATTGTGGAATACATACAACATACAATGCA  
TAATAATCACATCATGGTAAATGGGTATGCTACCTCAAGCATTTATCTTTTTTATGTTTACAAACAACTCAATTTT  
ACCTATAAATTGCTTAAAAACATACAATAATTGTTAACTATAGTCAACCTGTTGTACTACTCAAATATTAGCTCTTAT  
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TTTTTATGGCTAAATAGTACTACATTATATATATGCACCATATTTTCTTTATCTATTTGCCTGTTGATAGAAATTTAG  
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CAAACTGTTCTCATAGTGGTTGTGTAATAATTACATTTCCATCCAAAGTGACCGGGTTCCTTTCTTTTACATCTC  
ACCAGCATTTCTTATTATTTGTGCTTTTGCATAAAAGCCATTTTAGCTGGAGTGAGATGACATCTCACAATAGTTTTGAT  
TTGCATTTCTCTGACGATCAATGATGTTGAGCACCTTTTCATATACTTGTTTACCATTTTTATGCTCTCTTTGAGAAA  
TGTGTGTTTCAGATGTTTTGCCTATTTTTTAAATCAGATTAATTTTTTCTGTAGAGTTGTTGAGCTTCTATATATCT  
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GTTCTTTGCTGTGACAGAGCTTTTTAATTTGATGTGATCCTATTTTGTCCCATTGTGCCATTTTGTCTTTGGTTCCTTA  
TGCTTGTAGGGTATTACTTAAGAAATGTTTACCAGCTCCAATGTTCTAGAGACTTTCTTCAATGTTTTCTTTAGTAGT  
TTCACTAGTTCCAGATCTTAGACTTAAGTCTTTTCACTCATTTTGTAGTTATTTTGTATATGGCAAAAGATAGAAGTCTA  
GTTTCTTCTTCTGCTGATGGATATCCAGTTTTCCAGCACCAATTTATTAAGGAGACTGTCTTTTCCAAAGTATATAC  
TTGGCGCCTTTGTTGAAAAATGAGTTGCTGTAGATGTATGGATTCAATTTCTGGGTTCAAACTGGTATTCAGTTTGT  
TCTTTTTGCTCGGGATACCTTTGGCTATTTTGTAGTCTTTTATAGTTTTCATATAAATTTTAGGATTTTTTTTCTATTTCT  
GGGAAGAAATGCTTGGTATTTTTATAGGGACTACATTGAATCTGTAGATTGCTTTGGGTAGTATGAACGTTTTTAACAA  
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ACTTTTCTCCATTTCTTTTTTCAGATTGTTCACTGTTGGCATGTAGAAGTCTACTAAATTTTGTATGTTTGTTTGTATC  
CTACAACCTTTGTGTAATTTATCAGTTCTTAATAGTGTTTTTGGTGAATCTTCAGGTTTTTCCAAATTTAAGATCAT  
ATTTTCTGCAAAATGGGATAATTTGCCTTCTTCTTTCAAATTTCTTTCTTTGGTCTGATTGTTCTAGCAAGGACTTCCA  
GTATTATTAATATATTGAATACTAGTGGTGAAAGTGGGCATCCTTATCTGTGCCACCTCTTGAAGAAGAGTCTTCAG  
TTATACCTTATTAGTATGATACCAGCTGTGAGTCTGTTATATATGACTTTTATTGTGTTGAGGTATTTCTTTTATAC  
CCGATTTTTTGGAGGATTTTTATCATGAAGGGATGTTGAATTTTTATCAAATGCTTATTCAGCATCTGTTGAAATGGTCAT  
ATGGTTTTTGTCTCTCTGCTCTTCTTTTAGTAAAGTGATTTTTTCTGCTGGCGCTGTTTTTAAATTTTTTGTCTTTTTATT  
TTTTGAGAACCTGTTGTATATTTTTGATTGTCGATTAACAGGAGGCTGTAAATAATATTGTAACCTATTATTTTA  
AACTGATAACCAACTTAACACTGATGCATAAAACAACTAAACAAGCAAGGGGAAACCAATAAAAACTCTACATTTTAAC  
TTTTGTCGCCCGCTTTAAAACTTTCTGTTGTCTTTTATATCTTATTGTATTGTCTGTATTTCAAAAATAGTTGTAGTTAT

Fig. 6.283

ATTATTTTGATGATCAGTTTATCTTTTATTCTTTCTATTCTTAATTA..GATATGAGTTGTTTACATACATAATAACAGTGTATAATAA  
TTCTGTGTTTTCTGTGTATTTACTAATGCTAGTGAGCTTTGTTCCCTCCAGATGATTTCTTATTGCTCATTAAATATGCT  
TTTTCTTTCAGATTGAAGAGAATTCTTTAGCATTCTTACAGGATAGGTCTGGTGTGATGACATCCCTCAGCTTTTGT  
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Fig. 6.285

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Fig. 6.286



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Fig. 6.285

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TGCAATAAAATACTACTGGGGTTACAGCTACTATACTTGTCAACAATTTAAGGGATATTCTTTAGCTGCATTACTTTA  
AGGATTTCTGTCTATCTTTTATCTAGCAACTTCATTTTTTAAACATTTACTCTATGTAAGGTGCAAAAAA  
TATATGTACAAAAATGTTCTGCTGGAGTTTTTGTAAACAGAACTGGAGAAAGCCTAAATGTCAATCGGTATATGGCTG

Fig. 6.290

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ATTGAACAACCTGATGCACAACCTATAAGACAATACTGTGCATCTATGAGGAAGACCTCTCTAGTATGACACTATCTCCAG  
ATGACATTTACTATTGTATTATTTTATACCTTTGAAAAGAAGATATGCACACTCCCATGTATCCATTTTCTACTAGTTTT  
CTTTGTATATACTCTTAGAGTTTATGTAAGTGAATGAAAACATAAATTTCTATTCTCTCTCCCTTTTAAACAAAA  
GAAGTATAATCTGCACATTCATTGTTCTGCAGTTTGTATTTTGGCATTGACAGTGTGTCAATACATAGAGAAGCTTCTT  
GTGTTGTTCTGGAAGACCTTTGTTGAGATATAACTCACATACCCTACTCTTCATCAATACAGGGTGTATAATTTCTGTGA  
TTTTTAGTATATTACACACCTTTTGCACCCGTACCAAAATCAATGTAGAACATTTTACTACCACTATAAGAAACCCCT  
TACCTTATAGTTATCACCCCTCCATCTCCCCATTACCTGCTCCATATCACCTGCCTCCCTTCCACCCACAGCTCTAGG  
CAACGGCTAATCTACGTTTTTTCTCTATAATTTGCCTACTCTGAATGTTTCATATAAATGGAATTATATAATATGAG  
GTCTTTTGTGACTTGCTTCTTCACTTAGCATAATGTTTTCAAGTCTCATTATGTTGTAGCATATATCAGATTTTCATT  
TTTTAGGACCGAATAATATCCATTATATGAATATACCACATTTTGCTTATTTATTCATCAGTTGATAGACACTTGCGT  
TGTTTCACTTTTGGCTATTTTGAATGTGCTGCAATGAACATTTATGCAAAAGATTGTTGTGTGTGCATATTTTCTCT  
TTCTTCTGGGTATATTCTTAGTAGTGAATGCTGGGACAAATGGTAGCTCTAAGTTTAACTTTTGGTTATTTTCCAG  
TGTATCTGCATTCTCATGTTTCTTACAGCAGAAAGTTATTCTCTGAATGGCTGCATCATTATTGATGTAGTCAAGGTG  
TATTTTTAAGTGGAAAAGTTAAGGCACAATGTTCCAGTTATGGAATAATATGCTAAGACTGTACATACATAAATATGT  
TTCACCTCAAAGCATCTTTCTGCGTATGCATTAAGGTGATGGTAGAAGTTGCTAGCTTTGAGGAAGAGGTGGCTACAC  
GTTTGGAACTGAGGTTAGAAGGGGGCTGAGTACTCACCATTTTAACTTGGGGAAATTTTACTATGTGTGCTAATTAAT  
TTTTCAATTGAAAATTTGATTTCATTAATGTAAAGAAGAAGAAATGTAAAAATAAAAAAGAAGAAGAAGAAATGT  
TTTTCTGGACTCCTCTGACCAATGTTGGTCAGGCCAGGGGCTTCTTGACCTGTGCTTTGTTTGAAGTACCGGCCACCA  
TGAGGTGCTTTAGTGTCTGTACAAGCACTCTTCTTGCCATCTGCTCTGCTTGACATCATTTTTAGTTATTAGGACAAAAA  
TTAATGACTGCTTTTCTATCTTTAAGCCAAGACACCATTAAAAACAGACATTTAGCTCTTACTCTAAATTAGTGTTT  
CTTAAATGTTTTATTCAAATCAATCCACATCAAAGCAAAATAGGAGGGGAAAACCTAGGGTAGACATCTGAGTGAACCTT  
GGGATTGAGAAATAGGAGGGTGGTATGTGAACATAATCAATGTTATGATGATGATGATGATGATGATGATGATGATGAT  
TGCTTCCCAGTTTTTTGTACATTCTTCTCCAAGTATCATGTGTTGGTGAAGTGAAGAGGGAGTCTTTACTTTCCGCACA  
GTTTCCATCATGTAGCTCTGGAAGGGCTTGTGTTTGTCTCATCTTGCTTGAGAATCAGCTGTCTTATTTTGGGCTT  
TTCTATTTTTTAAGACAAAACCTACCTATAGTGGTTATACATGAACACACACCAGTAGATTGATTTCTGCTTGGTTA  
AATTGTTGCTTTATTAATGATAGGAAAGAAATCAAATTCGTTTGCCTTATAGATTGTTTCTTATTTTCTGCTTGGTTA  
ATGTATTCATTAAGCATTATTTATTCAACACTCCTATGACATCACTCCTCACTGAGTGTATGATTCTTCTAGGGTGGC  
ATAGAGGGCTTGATTTCCAGCTGGAGGAAGAATAATTAATATCCTTTTTAATGATCAAATTTCTAACCAACCCCAATT  
TTGAAAATAAATTTGACTTTGCCATAAAGTACATTAAGAAAGATATAGAAAAGAGATTCTATGAAAATGAAAATTAATA  
ATGTAATAATATTTGGTTTTATCAGAAATTCATAAACAGACTTTACTTAGAGTTAAAAGTCCCTTTGAGAGGAGTAAAA  
TCATTAATGAAAAAATGCATACATTTTCTTCAATCATCTATATCCCATCGTGATAATGAGGAGTACGCTGTGTGT  
AGTGACTGTGTTTGCAGGTGGAGGGAGTTTGAATGGAAGTAAAGATGCTCCAGAAAGATGCTCCAGAAAGATGCTCCGCAAT  
TAGCTTGCCAAATTAACAATCTATTCTGAAGTATTTGTTTATGAAGATGATTTTAACTAGAGAGAAGTCATATTTTATT  
TTGTTTATATATAAAGATATGTTAATCATAAAATGTATTCTTTTCAAACAGTTATACATTTTCTTTTGGCAGCACTAT  
TGTTTATTTTTAAAGGAAAAGACAGTAACATAACAGCATTTTTTAAAGAAACAAATAGAGATTATGCTGTGTAAAGCC  
AGCATAAAGCCATTTTTCCAAATGTCAACAGAGTTAACAAGAAATTTTATGTTGTAAAAACCTCACAGTTGCTTAGTTT  
ACTCCCTCATCAAAAAAGAGGGGGCAAGATTCTTTGACATTTTATGTATAATGTGACTAGAGAATGTGACTTTCAGTG  
ATGATGATGATCTAATTGCAATGCTAAGAACCATGGCTGGGCTACGACTGTGTGTGCACGTTGTTATGCTGGGGAGCAA  
GGGTACCTAGGAAAGAAAGCAATAATGAAAGTATCACTTGGGTATTTGTTTATTTCTGGATCTTATTCTATCTGCTCCA  
TATTATCACTTTGGCATTATAAATCTAGATGATGGCTGGGTGGGTGCGAGTAGCTCACACCTATAATCCTAACACTCTGG  
GAGGCCGAGGTGGGAGGATCACTTGAGTCCAGGAATGTAAGACCAGCCTGGGCAACATAGGAAGACCCCTGTCTTACAA  
AAAAATATTTTTAAAAATTTCTCCAGGCGTGGTTGCACACACCTGTAGTCCACCTACTCGAGAGGCTGAGGTGGGAGGA  
TTGCTTGAGACTGGGAGGTCAAGGCTGCAGTGAGCTGTGATTGTGCCACTACCTCCAGCCTGGGTGACAGCAAGACCC  
CATCTCGGGGAAAAAAAACCCAGATGATATGGTTAACCATATTCAGTCATTATTAGTTATTAGAAAATAAGATTTA  
CAAGGCATCCATGGAGGGGAAAACAATTACACACCTGTTAGTTGGGCTGAGGCTTGACAGAGATAAAATCACCTGCACA  
CTGTTGACAGCCAGTGCTCCAACTAGACTTCCGACACCAAAGCCTATGGCCATTAAGCACTCTGCTGGACTGTATC  
TTGGATAGTTTGTCTTATGGGGAACGTAGTACAACCTTTACAATACAACCTTTAAAAATAAAGTATAGCAGAGTAGCAGTT  
TGTCCACAGTCAAATATGAAATATGTAAACATTTACAGGTTCTTTTTTAATTTTTATTATTAGGTTTGGGGGTACATG  
TGAAGGTTTGTATATGGGTAGACTCATGTGCAGGGGTGGTTGTACATATTATTTCATCACCCGGGTATTAAGCCCA  
AAGCCTAATAGTTATCTTTCTGCTCCTCTCCTCTCTCCACCCCTCCCTGATCAAGTAGACCCCAATGCTGTTGTTTC  
CTTCTTTGTGTGCTGAGTTCTCATCATTTAGCTCCCACTTATAAGTGAGAACATGCAGTATTTGGTTTTCTGTTTCTG  
TGTTAATTTGCTAAGGATAATAGCCTCCAGGCTATCCATGTTTAAAGACATGATCTCATTCTTTTTTATGGCTGCATG  
GTATTCCTTGGTGTAAATTTACCTCATTCTCTTTGTCTAATCTGTGACTGATGGGTATCTAGGTTTATCCATGCTGTT  
ACTATTGTTAATAGTGCTGGAATGAACATTCGTTTGCCTGTATCTTTATGGTAGAATGATTTATATTCCTCTGGGAATA  
TGCCAGTAATAGGATTGCATGGTCAAACGGTAGTTCTGCTCTTAGCTCTTTGAGGAATTGCCACACTGCTTTCCACAA  
TGTTTGAATAATTTACACTCCCAACAAAGTTTGTAAAGTGTCCCTTTCTCTACAACCTTGCTAGCATCTGTTATTT  
TTGTCTTTTTTAATAATAGCCATTATGACTGGTATGAGATGGTATCTTGTGGTTTTGATTTGCATTTCTCTAATAATCA  
GTGTTATTAAGGGTTTTTTCATATGCTTGTGGCCGCATGTATGCTTCTTTTGAAGTGTCTGTTTCATGTCTTTTGC  
CCACCTTTAATGGGGTGTGTTGTTTTCTCTCTTAAATTTGTTTAAAGTTCCTTATAGATGCAGGATATTGACCTTTG  
CCAGATATATAGTTTGCAAAATATTTCTCCCATTCGTAGGTTGCTGTTTAACTCTGTTGATAGTTTCTTTGGCTGTG

Fig. 6.29

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CAGAAGCTTTTAAAGTTTATTAGATCCCACTTGTCAATTTTTGCTTTTATTGTGATTGCTTTTGGTGTCTTTGTCTATGA  
ATCTTTGCTGCTGCTATGTTTCCAGGATGGGATTGCTTAGGTCTATCTCCAGGGTTTCTATAGTTTGGGTTTTATATTT  
AAGTCTTTAATCCATCTTGAATTTTTTGTGTGTATGGTGAAAGGAAGGGTCCAGCTTCAATCTTCTGCATATGGGTA  
GCCAGTTATCCAGCACCATTTATTGAATAGGGAGTGTTTTCTCCATTGCTTTTCTTAGCTTTGTGCAAGATCAGATG  
GTCCTAGGTGTGAGTTTATTCTGAGCTCTCTATTCTGATCCATTGGTCTATCTGGCTGTTCTTGTACAGTACCAT  
GCTGTTATGGTTACTGTATCCTTGTATTATAGTTTGAAGTTGGGCAAGGTGATGCCTCCAGCTTTGTTATTTTTTATTA  
GAATTGCCTTGGCTATTTCGGGCTCTTTTTGGTTCCATATGAATTTAAAAAGTTTTTCTAGTTCTGTATTTTACAGCT  
TCTAACTACATTCTATTGTTGGACATCTTTATATTTTATCCAAATAGGAAAACATTAATTTAAATTTCTTGTCTATATA  
TCTACAAAATATTTATATTCAAGGCACAATGACCCCTTACATATTCTTTTTTCTTTTCTTTTCTTTTCTTTTCTTTT  
CGAGGCAGGATCTTGCTCTGTTACCCAGCTGGAGTGCAGTAGCTCAATCACAGCTCATTGCAGCTTTGACCTCCCATG  
CTTAAGCGATACCTCCCACTCAACCTCATGAGTAGTGCACAAACAGGCGTGCCCCACCCTCTGGCTTGTTTTTTTT  
AATTTTTTTTTGTTTTTTTTTTTGTAGAGACAGTGTCTCCCTATGTTTGGCCCAAGCTGGATTCAAACAATCTGCCCTGCCCTC  
AGCCTCCCAAAGTGCTTGGATTACAGGTATGAACCACCATGCCAGCCCTTAAAAATAGTTTTTATTATAAAGGCAATTT  
ATGTGCATTCTAGGTTTCTTTAAAAACCTAGCAAGAGGCCAGGCATGGTGGAAATGCCAGAAATCCAGCACTTTGGGAG  
GCCAAAGTGAGAGGACTGCTTGAAGCCTAGAAATAGAGACCAGCCTGGCAACAAGCAAGGCCCTGTCTCTACAAAAA  
TAAAAAATAAAATTTATTTTTTATGGTGTGTCCCTGTAGTACCAGCTCTCAAGAGGCTGAGGTGGGAGGATTGTGTTC  
AGGGTGCAGTGAGCCATGATTGCACCACTGCACCTCCACCTGGGTGATGGAACAAGACTCTTAAACATACACACACACA  
TATACACACACACACAATACGACACACGTATAGAAAAATAAAAATACAAATATAAAATTTCTCATAACCTCAACACACT  
CCCAAATAATCACTGCTAATTCTTAGTTATTTTTCTTCTATTCTTTTTTCCCAAGCAAGTATGATACTAATGCAATTAACCT  
GGATTGTACAGTTTTAATTTCTTTTTTAAATTTAGCATTTTATCATGAGCATTTTTCCATATCACTTAACATTATTTCA  
AACATTACTTATATGGATACAAATGTTTCAACCCTAAAAAGATTTTGTAACTTATGTATTTGGCAATTATTGGATATTC  
AGGCTGTTTTCTAGCTTTTCCCAATTATTAATATATCAGCAAGGAACATCTTGAAGTGAACATTGGCTTATCTCTGA  
ATATTTCTTTAGTAAAAATAACTATGTCAAAGAATATGACTATTTAAGACTATTAATATATGTTGCAAAAAATACTTCT  
CTAAGGTTATACCAGGTTACACTCCAAGCCACACTGCTTGAGAGTTCTCATCTTACTGTGCTGCTGCAGGAAATGTTT  
TTCATTAAAAAAATCTTTATCCACATATTAGGTTAAAGTGGTATTTTCACTGTTGTTTTACTTAACACTTTTGGACTAC  
TGGTGTGAATAAAAAATGGTTTTAATATTTTTATTAGCCATTATCTTCTGTTAATTTTTCTGTTGTCTCTCGCTTATT  
TTCTATTGGGGTGCATAGTTTTTACTTTTTGCAAGAGTTCTTTATGTATTAGATAGATGAACCTTCTCCAGCTCACA  
TTATTGTAATTATATATTCCAATTTTTAGTCCCTTTTTACTTTTTGTTTATGTTGTTTATACAGTCAAATTTATTGA  
TTTTTTTTCTTTGTAACTTCTTTCTTTGCTTTAATAATTTGAGGGCTTTTATCTTAAGAGTAGATAAATGTTTAGCTA  
CATTTTCCGTATTTGTGATTTTTTAACCTAGCTCTTAATCTGTTTGGAAATTTATCTTAATATAAGGTAGGGATACAAGT  
TATTTTTTTCCACTATACGCTCTCAGGACCATTGTTACATGTGCCCTACTTTGCTTATTGCTTTGTGTACAGATAAA  
ATTTTATGTATCATCTATGTGTAGACACCTCAGATATAAATTACATTTTACAAATAACATCTCAATAGAAACAAGT  
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TATTTGCCTTCTAAACCTTTTTATTGCTTGTAGCCATTTGCTAACTCTGAAGAACTTTTACCTTTTCTTCCCAGG  
GAGTTGATTATTAATTACAGTAGCATAAGACAAAAATGATAAGGATTGGAATCCGCAATGAGCCCTTTCACTGGGATGA  
AGCAGAGGCTGATGGGACTGGGTGGTAGGTGGGTAAAGTGGCAGATAGATGCAAGAGCAGGAACCACTCACCAGGCACT  
AGGAAAAGCTCCATCTAGCCAGGCATATTGGCAATAGTGTGCCCTGACTAGTCTTTGGGGGCAAAACATAACAGTCTCC  
TAAAAAGTGGCTCAGAACAGGTAATTCCTAGACATATGCCACGGCGTGAACAGGACAACCTTATTGAGGTATGGAAATAA  
AATCTTATATTTTTCTTATCCGCTCACAAGTTTTCTTTCTTGTGTTTGTGTAATAATAGATAAATTTTGACATAATA  
GTGCAAGAACATAAATTTGAAAAATAATATACGTAATGGAGGTGCTTGCACTTTTTTTTTTTTTTTTTTTTTTTTT  
TTACTAATAGATACGGTATCCAATAAAATGGTAATCACTTGTCTGGATCATGTGACTTCAGGAAGCTCTATACACCAG  
CTTGCAAGTTATGATGGATGGGACAGGAAGAGAGTATCTTAAGCCTATGTTGGAAGGCCAGGTGGACTGGAGTCTCAGGGAC  
GGAAGATAAGCACAGGGAATTAAGCAGAGCCAGTAGTAATCAGAGATAAGACGTATGTTCAAGTTAACTGCAGCAGG  
ATGGTGTGGTGTGCTGGGCTCCTGAATCTGTTTCTGCCCTAAAGTCATATCTGTAAAGATCAAGGAGGAGGAGCCAGAGCAG  
CAGGTGAGGTTCAAGTGATTAATAACACTGGAAAGGAGAACAGGTTGCAGAACTATGGCTCAGGCTACCTATTACAGCC  
ATTTTCATTTTTTTGTAATGCAAGTGCTATTACATAATCAAGGGTATCCTTAGTAACATATGAAGCCTACATTCTATT  
CCATTTTTTAAAAAGTTCACCAAGTAAACAATTGTACAGCAAATTTTATCAATGTAAAAAGCCATTGTACTTATCCAGTC  
AAACCATATTACCTCTCCTAAAGTGCCCATACGAGGCTCTGGGAAATTGAAGTTGCCCTTAATCTTGAGTTACAAT  
GGGCAGGGCTCTTTTTTTCTTAAATTTTACTCAATAAATGCAGGCTTCTTATGCATTAAATGGTGCCCAACAACATT  
GAACTACTAGCTCACCTCCTGAAATTCAGCACTTTACTATGTCTTTCAATGTAAGAGCATTCACTAATTTAACAAG  
CATTACATAACATGTGTCTTAATGAGTTCACTTAGCTAGGCCATGGAATAGATATTCCTGTAAATCAACTCCTTTTACA  
GTTACTAAGTACTTAGTTTATGTCAGAGGCATTTATTTCAATTAGACTGTGGTTCTGTTGAGATAAAATGAGATCA  
ACTATGTGACATGATTTTGAAGAACATATTATTTGGTGCATGATATGTGTGTGGGTGTAGGTAGTTTACAGAG  
AGAATGTGTAACATAGGCATGTGGCTTGTAACTGAAACTTTTACAAAACCTAGTTCACTCTATATAAAGAGTGTGT  
ACACACATGTGCATATACACACACACACTGTGATAATGTATCTGTGTATTGAGGGTTATAAATTTTAGTTGTAGAGT  
TCTGACAAAGTAGTAAATAGTCTCACTTCATCTGGATAAAGATCACCATCTGGAACATAAAAAATGCAATGATTCCA  
AATTGTTGAATAGTTGGATTGCATATTTACTTTTTCAGTAGTATGTTGGCATGCATGTAGATCCAGCCTTCTTTTCAACA  
AAGAACAGTGGTGGAAAGATTCCCTTAAATGGTTACTCTTTCTCAATAAGAGCAACCATATAAAAAATATAGAATATT  
AGTCATCATAGTTGAAAGTATCGCATAAGATTAACAGAGTCCCATCTGGTGATATGTTTTTACATCAGATTTATTAG  
ATCAGAGCGGGTTTTAACTAGAGCAATGACACTGCTATTATTAATAAGAGACGGAAGGCCTAATACATAATTGTCTAT

Fig. 6.292

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TTCTTTCTAGACATTTATGTGTTTTATTAGGATAATGAATACAGAATTATCAACATCATGATCATAGTTTTTTTGGTT  
TTAAGTAGTATCTGTAATGGCAAGCTCATTTTTATTTTATAACCTACCCACACACAGACCTACAGTGAAGCAAAACAG  
ATGCTGAAATATGTTTGTGGCATTGGCTTTGAAGAAACCTCAGAGAGGTTTGCCTCAGTATTTTAAAGCAAAATGGT  
TGGTACCTTTCTGAATAGATGTCATTGTGTCTTCAAACAAAGCTGACACTGTAGAAAAGAAATGGATTGCCCTGTCTT  
TTTACCAGTGAACATCTTCACCTGAACAAAACCTACATCAGGAAAAATAAAGGATTTTCGAAGTGTAGTTGTTGTTAAGC  
AGATACTAGTTATTCCATCCTTACAAATATTTTATATATAATATATACATTTATATATAATATTTATATGTATATTTCA  
TCACACACCAACATCCACAGACACACACACACACTTGTGTGACTACTTCTCTATTCCTTGAAACGCTTTTGAGAGACC  
TGAAATATCCTTGTATGGCAAGAGGGGAATGGAATCAAGCTGATTTTCCATTTTACAATGTGCCTGGGATTGTGCTT  
TGCAGTTTAGTGGCATTTCCTGATTCACCTCAGAGCCCTGCATGGTATAATATTGTCTACATTTAAGATGAGAAAA  
GCAAGATGTGGAGAGGCTAGGAAATCTTCCCAAAGGCACGAAGCTCCTGGCAGAACCCAGGATTTGAGGCCAAGTATCAA  
GGTTACAGTACAGATAGACATACATACTCAATTATAAGTAAAGTTTATGAGGCTGGGTTTGACAGCAACATGATA  
AGTAAAGTTTGTGATTGGTAAGATTTTTCGAAAACCTCAGAGAGTTTATTGCCAAATTTATTTTCTCCTAGAAACAT  
TTTTGTTGTTGTTGCTGGCATGGACAGTTATAAAAAATAAATTAGAAGTAAACAGATAACAGTTTCTGGCTGCCTT  
CATGTCTGTGAGCCTAACACGGCTCCCGAAGGAAAAATATGCCTCAAGGAGGCTTATATGATATTGCTTATTTAGGG  
AACCTTTGACCACTTATTTACAATATCCAGTTACAGCTGTGCTACTTCTCTTTTGGGCAAAAGCACATATTCGCTTGA  
CCATTATTTTGGAGGAAGCTGATATTGCCTGTCTCTTCCAACATGTCTTGTGTACCTTAGCTCATAATTGCAGCATTT  
AAGCTTGGAGCTCCCCTAACACACAATTATTGCCAAATTTACCATCGTTGGGAACATTGGTGAGGCCCTGCTTCAGAGG  
CCTCTTTGTGACGAAGAAGCATGTGTGCAGATATGCTTCACTTGCATCATAAATGCATTTCTAAAAGTAGTTTCTCTATT  
GAATTATTTTGAATAACATGTTTCTTAACATAACAAATACAGATGTTTATTGTCGCAAAATTTATTTTCTCAGAAA  
ATTCCCAATAAATATTCCAATATTTTATAAATATTTTATAAATACACATAACCTGTCTTGCAGCTTCCAGGGATAGCC  
ATCATTAAACGTTGTTGTTTATTTCTGAATAAACCTTTAAAGCATATACACACATACCCCAACAACATGCTCACACA  
CACACATATATATATATATATACATTTTATGGTCATATATATCTCTATATGTGCCAGATGAAATCAGGTCGGTCTCTC  
TATACATACATATATATCTATACAT  
ATATATGTATATATGTAATATGTACATACTATGTATGTGTATATATGTGTATATATGTGTATATATGTGTATACATA  
GTGTGTGTACACTGTATACATATATGTGTGTATATAGAGCAGAGAGACCTACCTGAATATTCATCTGGCACATAATAGG  
ATATATATGACCATTAAATGTATGTATATGTATATMTATATAGTGTGTGTATATACATATTATTTTCCAAATTTTG  
AAAATTTTATTTTATTATTTTGTGAGATGAAGTCGCCCTATCGCCAGGCTGGAGTGCAGTGGCACAATCTTGGCTCAC  
TGAAACCTACGCTCTCCTGGGTTCAAGTGATTCTGTACCTCAGCCTCCTGAGTAGCTGGGATTTTAGTTTTGCCCCACC  
ACACCCAACTAATTTTGAATTTTGTAGTGAGACAGGGTGTCCCATGTTGCCAGGGTGGTCTTGAACCTCTGAAGTG  
CTGGGATTACAGCATGAGCCACATGCCAGCCTGTATATATATATAATTTTTTATCTGCATTCTTCGCTTGACATT  
TTAAGAAGTATTTTCTCGTGTCATTTAGGATTCTAGAAAAATCTGATATTCTAATGGTGACATAGGAATCCATTTTAC  
ATGTAATAAAATGATTTATTCAATATTTAGCCATTCTTTTATTGTTGGGCATTTTAAATTTTCTCTTTTCTTTATT  
GTAGTGGTTCACTAAGCATTTTGTAGAAGAAATGTTAATCTGTATCTCTGGTTAATTAATTTTGGCAAAATTTTGGAA  
ATGCTATTACTGGGTCAAAGAGTTTAAATGGTGTCTAAACTTGTCAAGACATACTAAATATACTTCCAGATAGTTTTTA  
CAACAAATTTTAAAGCCTACATATAAAAAACAGTTCCGGTGGCTCACGCCTGTAATTCAGCACATTTTGGGAGGCTGAG  
GCAGGCAGATCACCTGTAGGTGAGGATTCGAGACCAGCCTGGCCAATATGGAGAAACCCCATCTCTACTAAAATACA  
AAAATCAGCTGGGCATGGCGGTGGGCACCTGTAATCCAGCTACTCAGGAGACTGAGGCAGGAGAATCACTTGAACCTG  
GGAAGCAGAGGTTGCAGTGAGCCAAGATCACTCCACTGCCTCCTAGCCTGGGCAACAAGAGAGAACTCCGCTCTCAA  
AAAAAAGGTTATTTTAAAGAAATGTATAGTGAATCTCTTTTAAAAAAGGGAAACAT  
TTATATATTTTATTAATATTTTAACTGACAGTTTATAAAATTTTGTCTAGTCCGACACTCTTGTTTTACAAATGGGAA  
ATTGAGGCCCAAGTTCCATATGAGAGACAAATACAAAATCTGCCTTCTAAAGCTGGTCAAAAGCAGTTATATCTCTAT  
GATCAATTCAGAAGTTGAGTCTCTGTGAAATGATTTCATAGTTGAGGTGATTTTACTGTTTCTCTTAAATGTTGTG  
ATATATTTTCTCTCTTATACGACTCTATAGTAAACAGAGAATCAATTTTACTCAATCTGGTTCATGTAGCAGTATCAGG  
CTGTGAAATTCATACTGCTCAGACACTGGTTCTCCAAGTGTGATGTACGTAAGAAATCTGTGCCTGTCTCTTAA  
TGTAAGTCTGATCTTCATCCCTAAGACCTGATTTCATTTGCTTTAGATAACACTGAGAGCTAATCATTTTGTAGCAAG  
CATCCAGGTAATTTAAGGCCATATTGTGAGAAAAGCCAGTATAACGATGGAGAATCTTATGTTGATGCTCTGACAC  
TGGCTCATACCTGCTCCATAATTTATTTAACTCCTCTCTGCCTCAGTTTCTTATCTATAAAGGAGGAAAGGAAATGCC  
AGTCTCTTCCACCTGGGATTCTTGTGAGATTAAATGAAATAAGCCATGCAAATGATTAAACACAGTCTACAGCACACAG  
TAAATACTCAATAAATGTGAATCATATCGTTACTGTTGTCTTGGTATTCATATTGATATCATTTTCTGCTATTGG  
AAAATGTAAATGTACAATTTTAAAGTATTAGCATTGCTGGTGGATTATTGATTGCAATTTGTCTGTCTCTCTCTGA  
CATTGCTAAATTTCAATTTACTTAAATATTTCCCTTATTTTCTCTGTTCCACCCATGCACCCCAAGTGGAGTTGAAAT  
TGAGTTGAGATCAAATGCAGCAGGTGTTGCTCAGAGAATTTGGTAAAGACTAGTTGAAAAAGATCAGTGAAACTTTATC  
AAAAATAGAATAGTATTCTCTGGTCACCTGCTTAGAGAACCCATTAAGAAGTGTGAGGTTCTCCAGGCCACCATAGA  
GCTATAATCTGCACCTGTATCAGCCATAGCAGGTATTGTCAGATGAAATTTCCCTCAGCTGTTTATTCATAGGTTCT  
GATCATAGCACACTACAGACTCAAACCTCTGGGCTCAAGTGATCTCCAATGTGCTCTTGTAGTGTGAGTGGGACTACA  
TGTGTGGGCCACCATGCCTGACCATGGAGTTCTTAAATGATATTGACATACATATAGAAAATTCATTCAATAAA  
TAGTTATCACTTTCTATACCTGGTGTGAGAATTATGCTAGATATTGGAATACAGAAATGAATATATTAATATTAAAG  
TCACTTAACTAAGCTTTTCCCTGTGATAATCTTTCTGAAACAAAGCAAAATGATACAGAATTTCTTAAAGTACTATTCAA  
TTTGTGGCTATTTCTCCTAAAGATCAGTGTATCTGAACTTGTGGCTGTAGATATTTTAGTCATTTCAAATGTACT  
GATTTGGCTAAAGAATCTACTTTGACCAAAATAGGATACCTTAAATACAAATCAGCAAAATATGTGTAATCCCCA

Fig. 6.293



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GAGAAAAGCCCTCTTAAATGCCTACTTATTTCAAGTCAAATTTAGTTAACTACATAACTTAGTCCCCTGAGTGTCACT  
GGAATTTCTCCAGAGCTGTGACTTCGTCAAGTAAAGTTACCTCTCTCTTGACCTTTGGAAAGAGATGGCATTGTGTG  
ATAGTTTTGTGTGTCTTAAGCTGGGCGCTTAACAAATATTCTCTCTAACAATATTCTCTCATTAAACCTGAAAC  
AGCCTTTTCTTACACCTAGAACTTTGTAAAGAATATGTCTAGGAATAGGCAATCACCTTTTAAGGCTCAGACAGCCAAG  
AAGCTGTTTTCTTTTCACTCAAGGTAGAGAGCATCCATGACTGCCAAGTTCTCAGCCATGGCTGGTACAGGCGGGTG  
CAGTAGGAGGCACAGTTGCCACTCCTCAGAAAGAACAGGGACATGGCTGGACCCATTGTCTACTTGGCTCAGGGCCAG  
GCAGGGTAGCAGACCTAGTTGTTGAATGCCCTTTTATTGATAGTTATTAACTTCAATAGGATCTTGTTTTTATGGTAG  
GCAGATGGTCCCTAATTGGTTTGAACCTTTGTCTCTTTTCATAGCAGAAATCTTAATCTGCTGCCACAAATAAGCTT  
TGGAGATCTGTAACCTCCCTTAAATAACAAAATGTACAAAGCATTTAGTAAGTGTCTACAGTGTGCTGAGCACTTCA  
CATGCTTTATCTCCTTTAAATCTCATAAAGACTCATCATAGGTACTGTTTTTATTCCCATTTTTTAAATGAAATTTA  
AAGAGACTAAATGACTTGAAGAAGGTACAAAACCTAAATAGCAGTAGGGTCATTATTTTAGGCCAGGTTATCTAACTCC  
AAAGCCCTTAGCTTAATCACTAGGCTATACTGAACCTTTATGGAATTTACATC CAAAAGGGATGTGTGTGTGTGTGT  
GTGTGTGTGTGTGTGAATTTTTCCGAAGACTCACATTTCCAAAGATTTATAAGTCATGTCTGTTCTCAAAGGGGTCTGT  
GTCTCCAAAATTTGAAACTCTTTGCAACAGGGTGGCTATGTTTTAGAATGACATAAACAGATACAATGTTCTCCAGAGT  
CCAGAGCAGGGTCTAAACCTATTGGGATACTATACTTGTGTTTCAACTGAACCACTTGGTTAGTTCACTAGGAAGATC  
TGCAGGTCTTGAGCTGAGCTTAGTGTTTTACAGACATGTGCCATTTCATTTCATCACCTACCACTCATCAATATCTGA  
AGAATCTGAAGGCTGAAGGAAAATAAGTGGGTGAGCACAGGTGCAAAATAATAAATTTGGAGCATTCTATTTTCGT  
GTTATTTCTTGCTAAAACCTGGCATATTACCCCAACATCAATTGCAATATGCTATTCAACAAGAGTTTAACTAGTTT  
ATAATAGGAAAATGTCTCTTTTTTAAAAACCAGGGTTAAAGTCACATCTCTTCTCTCTGACAAAGTCACTGTCTACA  
TAAATAATGGTCTTAGAGTCAAAATAATAACAGAACTTTGTTCTGATGGAGACTGTAAATATACCAATCTCCCATTA  
AAAATATAGGTGGGCTGCCGTAAGTGAAGGTTGTGTCTGCTGTTAGTTTTTAATAACTGGAAGGCTTGACAGAGAT  
AATTGCGTTAGTGCTTCACTGGCCTCAAGATGCATGCAATGAGTAAATTAAGACCATCTTATTAATAACCAAGCAT  
TGTATAGGAACTCCCATGTATTCAAAGGGGAAAGAAGAAAAGGAATTTTATATTTACGGAGCATGTACTATTTTCAA  
AACTCTGTTCTAGGTGCTTTCACATTCATTAACCTATTTAATATGTGAGTGTCTTGTAACTCTTTTGTAGTGTGTCAG  
GCTCAGAGAGGGTAAGAAGCTTTGCTTAAGGTCCCTAGCTGGCAAGTAACAGAACCTATTCAAATTCAGATCTGATTT  
CAAAGTCATGTAGTTTTTGGCCACAGTACGATGCTTGGGGAGCTAAATGGCATTTGGGAACCTAGAGTTAAAGCATCAG  
TATTTTTTACTAAGGGGCCATTGGATCCTAGAGAGGCAACGAATTATAATGGATAAAAAATACAAATTTACGGCAAGTTA  
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ACATTCTCTGTTGTTATTATCTATTGTGATTATTGTGTTACCTTGGAAAAGGCCTGTAGAATAGTGGCAGCTGGGTC  
CCCTGGACAGTGAACCTACCAACCTAAAACTGTCTGGGAGGCTTGCCTTTGGGAGTTCTTGTATATCAGCTCTAATTC  
TGTCAGGAATTCAGAGGCAGAGAGCAGGGTTGAGGAGAATTTACAGGTGGTAAGATCTCCGGTGAGGAGGCATTTCA  
GCAACGTGATCAGTGTGGCAAAGCTATGAAAGATTTGAAGAAACACACTTTCTACCTGAGATATCACTAAAGTTTGA  
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TCCCATGTTTGTCTGTTGCTTAAGCAGTATTTATTTTGGTAACAAGAATACCTGGCCTTGGCACTTAATCTCCACCATT  
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TATGAGAGAGATTGTTTACATCTTGCTTGATGTTTTGACATTATAGGTAGTGTAGGTTTTGTTATTACAGTTTGA  
GAAATGCGTATGAGATTTCTCAGGTGAAATAGAGCTTTGATGTGTTACTCAAAGGGATAACTATGACTCAGAGGAAC  
CATTTCTAAAGATGGCCTCTTTCTCTTCCAGTTCTTTCTGTTTCAATAGTAGGGCTGGGGAAGGCAGGCGAGTTT  
TTGTTATTTCAAATGACAGCATCAAAGATAGTAATCCAGGTGCTCAACAAAAGTCAAGTACCTTTTTTCTCTCTCA  
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GTTTGATCCTATATTACAAGAGTCATCAATTTTGGTTGAGAAACAAAGGACAAATATCTCATTATTGTGCTAACCAT  
GCTTATTATTAGTTTTGTGCCCCATAACATAAGTAATAGCCCCAAATACATGGCACTTATCACACACCAGGCATAATT  
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CACACCTATATGAGGGCAGTATGATTTCCCATGTGATAAAGAAGGAAAGGGAAGCTCAGACAGATTAGATATATTGTC  
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TATTTTAAACCCTGAGATAATGCTTTATTGACAGTGTGAATAAGATGTTTGGAAATGTGGAAGGAAGAACTGGAGGTCT  
ATTACACATTTCTTACTACATGTTGAGCTTTGAAAAGTGAGAATGATTTTCATGAGGCAGAAATGGTTGGGTCTAAAC  
TTCATTATCTGTAACACATACTCCAGAGAGTGAGAACAGTATGACCAGAAGTATCTTTGGAGGGGCTAGAGACAAGATT

Fig. 6.295



[illegible]

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GCTGCATAGTTTTTCCATGGTATATATGTACCAGATTTTCTTTATCCAATCTATCATTATGAGGACATTTAGTTTGTATTC  
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Fig. 6.29

GTTATTAGACTTTTGTGTCAGGTAATACAAATTTACAAACATTTTCTCCATTCTGTAGGTTATCTGTTTACTCTCTGTTAAT  
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TATTTAACCTTCAGTAGAAAATAGTTTCTTGTTTAAGAAAATGATCTCCATCTAGTGGACAAATTTTATATTACAG  
TATACAAAGAAAATATTAAAGCCCTAGAATATCTCATCAAGCACTTCTGACCTATTAATAAATGTTTTGGTTTT  
AGTGCTAATATTATGGCTTAAAGTTGTAAGATTTAAAAATATCATAACTATCTAAATGACTTAAGGTATTTAGCAATA  
TTTGTTCAAAACCTTATAGTGAGTGTAAAGACTTGCTTGATTAAATGGAAAAATTATAATTAAAGAAAATTTACTG  
ATTTATACAAATTTGGTGTACTCAGTTGAACTGAAAAAACTAAACCAAACTCACACTTCTGTATCTCTTACATTT  
CTGTTTCATGCACAGGAAGGAGGGGTTATTTCTTTTTTAAAGTGTAGCAATAAGAATATCTTGATATTAAAGGGAAATA  
AACATAAACATTTCTACAGGCATTACATTACTAGGTCCTCTCATGCTGAAAGCTGCCATGACTATCTTCTTAGAAG  
AGTATCTACTTTGCCAAACCCCACTATTTAGAAGTTTTTAAATGTCTTCCAGTTGTGTACTAAATACCTTCAAAACC

Fig. 6.298

[illegible]

Fig. 6.29g:

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TCCCAGCTACTCTGGAGAGGTAGGAGGATTGGTTGAGCCTGGGAGTTTCAGGGTTGCAGTGAGCTACGATCATGCCACTG  
CAGTCCAGCCTGGGTGACAGAGGAAGACAAGACTGTGTCTGGAAAAAAGAAAAAGAAGA GAGGAGAAGGAGAAG  
AATAAGAGAGAAGAGAAGAAGGAGAAGGAGAAGAAGAGTAAAAAGAAGGGAAATGTAAATTTAGAGATGGAGGAGTAAAA  
TGTTAAGAGATATTAGCCATGAGTTCTCTAAACATTTTACTCCTCCATCTCCAGATGAATGAATGTAAAAGTAGAAGGT  
ACAGCCATCAATAGCCAGAGGAGAGAGGGATGGGCGAGCTTGAGAAGAAAGGGAAAGGCTTAAAAAGCCACTATGCAG  
ATCAAAAAAGGGAAACAGGGTAAAGGTGAGTAGAATACTGACCAGCCCCATAGATAACAATAAACAATGTAAATAGGCG  
AATGACAGAATTGAAAGTCATCTAATGCAACTTCATCAAAGGTGAGTCAGGCTTGGTATTGACAAAAGAAAGAGGAAAA  
CTCACAGTGAGTTAGTGGAGTCCATTTATGTAGTTATGTGTTCTACCTTTTTAAATTGTAGTAACTGAGTTTGGGATA  
GATTGTTTCTTTCTACATTCTACTCCAGTTAGTAAATATTAAATATATACATATATTTTATGAAAAGCTTATAGCATT  
TCATATTTAAATATGAAATGCTTTTATTTCAAATCAAACCTTGCAAGGATACCTCATTTTGCTGTGTGCCTCAAGAGTT  
CTTTATCTGATCAGACTCAGGTAGGAATGATGAGTTTAAATCAGACCATGAGTCAACACTATATTTTGTCTGAAAGTAAT  
GTGTGATATGTTTAGCTTTCCATTCTCTTGGATATTACATTGGAGCAGTAAGATATTCCTTTGATACCAACTCCTA  
GAAAGCATTCTTTCTACCAAGGAGATTAAAGTTTCTGTGGAAGGAAAAAGGAAATAGATAAAATAAATACTATTTCAACAT  
TTATCTGACACGACACATATCTTCCACCATAAAGGACTGTGCCCTCTCTTAATTTGAATTTCTCATATGGCCATGGTA  
AATTTTAATTTTCTCACCTTACCTAGTTCAACAATAATGCTATGAAGACTGTCTGATGTGTATAATTCAACTGCGCTTTA  
TAGAGAATGATGTATATATTTAATTACTTGATGATTTCTTATTAATAGTTCTAGTTAAGCTTTCTATTGAGAAATTT  
TCTTAGAAATTTCAAATACAAACAGTACCTAATGAGGATAGGTACCTAATGAAGGGTATTTAAAATGAAGGTTTGTGGT  
TATCTATTTAATTGAAGTGTTTTGGAAAACTTTAAATACTCTTTAAGTTTAAATATAACTATTTACTCTATTGGGAAA  
GTGAGAAGAAGGAAGATAATCCCTTCTAGTAGATAGGATATCGTCATCTTATCCTCTATAAATAGAAACCAATGAAAT  
AGCTGAAGAACAACAGATAAAGATGGTAGTAATAATACATACATACATGAGTGTGTATATCATCAACTTTCCC  
AAGTATTTTACACCAGCTATCTTATTTGATATACTCACAGTCTTTTGTATAGGGACATTGTATGCCCATTACAGGT  
TAGAAAGCCAAAGTCCAATGAGCTTAATCTTTTGAAGAAAAAGCAAGCATTTTGATTATTTCTAGGAGCACATAATTG  
ATAATGCCATTGTAAACAAAGTACTTTATACTACTACAGCAAAACTGCTGAGAAACAGAAGTAATTGTTGACCAAATT  
CATTAACCAATGAAATACATAGCAGTATCAAATTTGATTAAAGATAAAATAAAGCTCAAGGAGGTACAAAGTAAAT  
ATGCAGCCAACTCTTAGAGAATGTATACAAGTATATAGCACTAGGCTAAATTCAGAATCTAAAAAATTAGCTCATATAA  
GGCAGAAGAGAAGTTCTTGACCACTTCTGCTCAGAGACCGTCACACAATTTGTTAAATATAGATGATGCAGTAGCAACT  
TAATTTCTTAAGAAAAAGTAAGAAAAAGAAAAATGTTAAGTATTAGCATGAGTCTAGTAAATAAATACATGAAATAAAT  
TGCATTACCATTAAATAGTAAAAATTTTTTATAACAGTAGAACAACAAAGGCTGGTGTGCCCAAGTGGTGT  
CATGAAGTAACATGAAGAAAAATTACAGCGTAAATAGACAATATTTTTGTCTATCTTAATATTTTACGATCTGAATAACAA  
TCATTCTGTGTTTTTACATCATCCAGTAATATAGTATCTGTATTTGGAAACACATAAAGTTATGATACATTGCAAGA  
TTAAGAGGAGAATTAGCAATGACAAGATAAGTAGAATTAAGTCAAAAACATATGAATTTATTAAGTATAAGTTACCTGT  
CAAACATCTTAAGTTTTAAGAAATACTCAATTCACCTGGATAACTAATCCTCTATTCCCCATCCTCTGTAAATTAACA  
CCAACACATAGAATGCAAAGATGATCCAATCGGCTCTTCACTCACATTATATACATTGCTTCTACACACAGAATATGG  
GGTGGGGTGAATGCATTTCAGAGGGCCAGTGACGAGGAGTAGATTTGATATACCATAAAAAGCTGGGGCAGATATT  
GGGAATCTAGCTAAGTTATCCCCAGGCACTATACAGATATCTCAGACCTCACTGATCAGGCTTGGGGTGGCCCATTTG  
GGGCATTTTCTCAGCTAGTAGATAATACTCTCCCTACCTCCCATGTCAAACACTCTGTCTTTCTTTAGCAATTAACAAG  
TCCCTCACCACTTCTTGGGCTCTAATGTGTGTTTTTCACTCACAGCCACTCCTCTCTACTACTTTTGCTGCTAAGTAT  
AAGAGTAGTATTGCTTCCAGTCTCTGAGTTTGAAGAAAGGAAGAAGAAATCCCTTTATGTCAATTTGTATCTTTTATTCCA  
GATTATTAATCTTCCCTGGTCTCACTAGGAAGAATATAAATAAAGAACACGTTGCAATTAACAAGGTTCTAATTTCTCAC  
TGGATCTACATGAAAAGTTTGTAGTCATCTTACCTAGATTGCAAGATAATATTACACTAATGAACATTTCAAAGCA  
TATCAATTTGTTATCTTGAAGCTTTCTTCCATTAAACCAAGAAAGCTACCATGGCCAAATCATCTCTTCCCCAG  
TTCTGGGTTTTTCCAGCTGGGGAGGTATCTCACCCCTCACCCGTGTGGTGTAGGAGTGATGGGACAGGTT  
CTCAAAATGTGTCTGAGGCAACAGAGGGAATGTACATGGGTGCAAGCGTTATTTTAAATGTTCAAGAAAAACAGGAAA  
ACATCTGTCAACCACCTGGAATACTAATAGCTTGAATAGTTCCAGTTTCCAATTAAGACCATGATATTCCTTTCTGT  
GACACCATATCTTTGCAAAATTGGGTTTTTACAGAGTTGCTGGATAAAAATGAAGTGCTGAGCAGAAATCAATGTGCAAC  
AAAAATAAGGGAGGCAATGTCCAATCTCATTCCAAATGAGAAATTGACATAGTGCTCAGTGGGTGCTAAATTTGTAG  
AACAAAAACCTTATTAAGTTATTTGGACTTAACATTTAATAAATTGGAATATTATTTATTTTGGCCAATGTGTTGCTGT  
TATTAATAAATTGAGATATTAAGGGCACCATGTACTGAGAAAGTCTGAAAATATTGGATTAGTTGTTTATTTCATATCT  
GAAGAATTAGAGCTAAATCAGGCTAGGCATGGTGGCTCACATCTGTAATCCTGGCAATTTGGGAGGCCAAGGCAGGCAG  
ATGGCTTGAGCTGAGGAGTTTGAAGCAACTTGGGCAACATGGTGAACCCCTGTCTCTACAAAAATACAAAAATTTGC  
TGGGCATGGTGGTGGGCGCTGTAGTCTCAGTCACTTGGGAGGCTGAAGCAGGAGGATCACTTGAACCCAGGATGTTGA  
GGTTGTAGTGAGCCACGATTGAGCCACTGCACTCCAGCTGGATGACAGAGTGAGACCTGCCTCAAGACAAAAAATA  
TGATTAAAGATAAATCAGATCTCTATGTGAGACTATTTGAGAGAATTTTGTAGGAGTTAAAAAATAACAGTTTCCAA  
GCTGTGAAGTATCTGATGTGCTCTAGAGTAGAGAATTTATCTTTTCTTAATTTCTGTTAGGATCCCAGGTAGCCAAAT  
CTTTTTTTATAAATGTGATATTATTTTGGTAATGACCTAGATAGACAGGCTTTTTCTTCCATTGCTGTGTGCTGGCC  
ACTGTTACTAGTATTATTTCGGAGTGTGATGCAGGCATTAATACTAGCTATTAATACTCAAGAAAGTTTATTGGCAAAAT  
ATGCTAAGGTCATCTGCTACTAGAATACCTTTTACTATCTTTTGTTTAAAAATTTCTGCTTTATTTGGTGCCATTAT  
TCAATCACTTAAGTCATTTTATTTCTGATTTAAAAAATGGGAGTTTCATGAATTGTAAATAAGTCTTATAAATTAGC  
TAAACAWGTTTCTTCAATCCTTGAACCTGGGGGATTTAAAAATATTAGCTGAATAGGCATTTTATATTCTAATCTCATAC  
TTTCAAAAAATCATAAAAATGAAATCCTGATGTTTAGACATTTTAAATGGTAATGTTTTTATGCCACAGTATAAAAA

Fig. 6.366



[illegible]

Fig. 6.30



[illegible]

Fig. 6.302

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CTAATTAACTGTATCTCCTTTTCCTTATGATTTTCGTAATAGTAAACAGATAAAGATTGCCACCTAGTGTGTTTAAAGAT  
TTCAACCAATCATGAAATGAACCTTCTATAGGAAATTATATTTTCAGGTGCTGATGTTGGTTGAACCTTATTTTTTTTAAAGA  
TGACAACAGGCTTTTTTCATTTTTAAGTACTTGAACCATATATGGATCTCAACAAAGTCACCATAAGAGTGTGGGCATTT  
GGATTTCTTGCTTTTAGTTTCTTGCTTGTCTGTTTCCTTATTACAGAAAGAAAAGGGTAGAAAATAACGTGATAAA  
TAATACAGAAGTAGAAGAAGGATGGGAGGGGGAATAGAGAATAGAAGTTCCTGACTCTACTGTCAATTTCTCTTGTGAGA  
AAAAAAAAGACAATAGTATACTGTTGAGCCCTGTATTCTCCTGCTTTCAACAGCGCTGGCTCAGGACTCAGCAAGTCTT  
TCTCTTTGGGAGAGACAAGGCTCGCCAGGACTAGTGAAGATGACTCTGGTTCACTTCTGGTAAACCAGGGAAGGTGACA  
GAGCATGTGGCACCTCCTTGACATCATGAAATTTAAACCAATGTGACACTGACTCCCACAGTGACCTACAGTGGCTC  
ATCCTGGCTGTTCTAGAAGTTTCTGCACTTGCATTCTGCTGTGACTGTTACCTTGGTACCAATCTCATCTCTCACATAC  
ATACATATGTGCATACATACATACATGTATACATGTGTGCATACATACATACATATAGACACGAGTGTCAAATGACT  
TTTTTCTGAGCCTTCCTATCCCTCATTCATTCTCCGCTGTCTCCATGAACACTCCAGTTCTTTTTTTTAAAGAGC  
TGTATTTTCTTAAACAGATACAGCTGTTTTTTGTTAAGGGTGTGTTGTTTATAATTGTTTTTAAATGAAG  
ACAGTATTCATCCTCACCACCAATTCACATTACCAGCGGTACAATTTCAAATGTCCAGGCGATATTCAGTGTG  
TGACTTTGAATCTAGCTTTTCAGTCACTTTATAGAGACCTAATAGTCTCTTCCCATCTCAGAAGAGACTCAGAAAAAT  
ATTTAGCCAAGTAGGCCCTAGGAAGCCCCAATTTATTACATTGTATTGTAATCCCTCCAGCCCCACTTTACGTGGCAAG  
GCGCTTTAAAGCCTTCTGTGGGTAAAGTTGTTTCAGGTGCAAGATTTTCAGAATTTATTTATTTTCATAGGATTTTTTTGA  
GCATATGTGATTATTCAGTTCATTAAACCCACACATACTTTAAACCAATCATATTCACAAAGTGAATCTTCTGTTGA  
TCTTAACTACCAGATCTGTTTTTAAATGATTATAAGCAAAGTGTAAGACACAATTCAAAGATATGTTTGTATTATATTT  
ATTTTCTTAAACACAAATAAAAAATAGGTTTATCTTGCCTTATCTCTAGTGACAGTATGCTGAAAGATCTGTTTT  
TAATATTGAGTTGAGGACTTAGACAAAGATTTTAAATTTAGTTTGTAGGTATATATTCAAAGATAATTTAAGCATGACA  
TACTTTTGAATAAATGGATAGGCTATAACCTGCCGTTTATCGAGGACATCTGCCACTGAAATGCTAGGTATCATTTT  
ACTGTTACTAAATGAGACCATCTTGAGATATTTGGCAGAAACAATTTCTGGGCAATTTATTTAAAGTAATATATTTCT  
CTTCACTAAATGATAACTGTCTTTATGCTTTCATAGGGAAAAAGGCTGGTAAATATCATAAATATTGTAAAGTGTA  
TTACTTATAATACTTATAAAGGAGATACAAACAAAGAGAAAAATTAATGTTTTTAAATAATGCAACCCCTTTTGAGTTT  
TGAAAGATTCAAATCCACTGCAATCTATATAAAAAATTAGGAGACATATTTCCATGGATTCAATTCAGATTGATGATGT  
GCCTTGTCAAGATGACTTAGTCTGAAAAAATAAATTTTATAGTAGGTCAATTATAAAGATAAATAAGAAAGAGAGA  
CTATAGCTTGGGACAATAAGAAGATGTCATATTATTTTAAATTTGTTTATCTGAACTGCCTTCATCCATTTTACAATA  
CAATGTCTTCAGCTTGGCCATGCACTGAAGCAGATGAATAGTTTATCAGACTGGCAAATCAAGTCGGCATAGGTGGCAT  
GTCTTTTCTCCTTGTGTAATATACCTCCCATTTATGGAATTTTAAATAACATTTTAAATGTGCAAAACCATTGAACAT  
CTTGAATGCAATATATGTAGTATATACACCTATTGAAATGTTTTTGTCTTCGGACTTCTAACACACTACACAGTTTA  
CTGATTTGTCCACCCTCCCAAGAATGTTTGGCTTCAAATGAACTCTAAAGGTGCCTTTATGTGTGTAGAAATTTGTCA  
AATGCTGAAGTGTTTAGCTCTGGATTTTGTCTTCATGCTTTTAAACACTGGTGTATCTGTAAATATTTCTCAGTTGTT  
TTGTGAGAGTTAGGCTACTGTTTCAAATAAGTACATAAGAGAAATTCAGCCCTATATTTACCTATATGACACAGGCA  
GAAGGGAAGTCAAGATGATGGGCCAAGGAAGAAATGTAGCTGGCCAAACCTGGCATCACTTTGTAATTTGCAATTTAT  
GGGCCATTTTCTAGAGCTTTATTTTTTAACTTTTAAAGCTGTTCCATAGGAATCAGCCAATGCATATCACAAAAGGGG  
ACCATTCAGGTATGGCTGTGCACTTACTACCTGCGTGTCTTTGTGTTAAATCTCTTAATCAATTTGAGCTACAATTT  
TCTCATCTGAAAAATGGGAGTAATGTCACCTACCTTGCAACATTTGTTGTAACAGCTGATGATTGTATATAAAATACACT  
TGCTGTGATAACATTTCTTTTACTTTTGTAAATGCTTGAATTTTTCATATCTTTTTTCCCCAGAACTTTTTCTTTCCC  
CCAGAGCTTTTAAATGCTGTCATCGTCCCTCTCTCTCTCTCTCAACTACCCTGATTTAGTTTAGGTCCTCATCTCTT  
CTTTTCTCTACACTGGTCTCCCTGCTTCCATTTTTGCCCCCTTAAAGCCCTCAATCTTTATAGACCTGTACAGGGTC  
TCAAGAGTCCTTCTTAGCGAAGTATCAGTTTCTGAGTCTTTGCAATTTCTGACTGCATAGGAAAGCAAAATCATTAT  
TGATTTAAAGGTTTTTACTACTGCTGCTAATTATTATTATAGAAATGTTTATTGAACATTTACTGTGTGGTAAGCAGAT  
TTTTTCAGCACTTAACATTATTAATTTATTGAATCCCAAACATCACTCTATGTATGTGCTGTTATCTCCATTTTACAGA  
TGAAGAGGCCAAGGGAAGTGAAGTTTAAATACTTGCACAATTTACACACCTAGTATGTGGCAGAGCTGAAATTTCCAA  
CCCAAATCTCCATCAGAGAGTAAATCCAGTTCTTGTACATTTTCATACAAGGGCTCTGTGATCTGCTGCCTGGCTCGT  
TACCACCATGATTCTGAATTTCTGCTTCCATGGCATTTCTCTAGAATCACCGAGCTTCTCGTGTGAGCTCTGTATCT  
GCTTCTTTCTCATCTAGGCAGCTGCTCTGCTCCTTGGCTTCATCCCTCTCTGCTGGCTCCCACGGGCTCAATGGCCCTC  
CTTGCCACTTCAGTGCACCAGGCTGCTCCTACCTGGGCCATGTTCTAGGAAAGAGCCTTTCTGGGCTTGACCTCAG  
AAGACCTTTTTTTTTTGAAGTCAAGGTAATTTATGTAATTTATTTATTGATGACAGAAGAACTATCTTAGTCCAGT  
TTCTGTTGCTATAACAGAATAGCATAGACAGGGTAATTTATATAGAAAAGAAGTTTATATCTTACAGTTCTAGAGGCTG  
GGTAGTTCAAGGACATGGCATCAGCATCTGATTAGGATATTTGGGATGCATCATCCCAAACATGGAATAATGGAAGGG  
CAAGTGAGCACATGCAAAAGAGAAAACATGAGGGGCTGGGCTCACTTTATAACAACCCACTTTATGATACTAAACCCC  
CTCCACCATAACAGCATTAATTCATTATGAGTGTGAAGCCCTCCTGACCTAATTACTTCTCACAGGCCCCACCTCT  
TAATACTGTTGCAATGGCAATTAACATCAACATGGGAAATACCTTTTTCAATTGACATCTGCTCTACCTATTT  
AGTTTTTTAGACCTTATGCCCCTCTGCACTCAGTTGCTCTTCTTATAAAATGATCATAAAACCAATGCTCCTACTTCT  
TTAGAGTTCTAGAGTTCTATGAATAATCTCTACAAAGAGCAGGTGCCCCCTGAAAAACATGATTCTGGAACCTAAGGGGG  
TGTAATAAATACATGCTTCTTTTACATTGTTTTTCTTCTCTGCTTTTATTTCCACATTTTATTTTCAAGATCT  
CCACATGTTTGTATGACGACCACAGCACCTATTCTAGCTATTGGTAACAATTTATGAGTAACATCATCCATATGCTCC  
CTGTGCCCCAGCATGTTTCTAGGGTGTGTTTTGGGTCACCTAGGTTGTTTTTCAAGTGTTCATGAGTGAGCGAAAAGT  
TTATTGCACTGTTCTCAGGGCCATGTCCAGGGAGCTGTCTGTGTTGAATAACAGCATTCACTTTTGATTTAAGAATTT

Fig. 6.303

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TATCTAGCTAGATCAAGAAATAGCTGATGGTGAAGTCTGGAATCCTTGTCTCAAATTATTCATGCTAAGAAATACCACA  
AAAGAACCTTGGGCCCCAGTTTCTCACTTCTCTCTACTGGAATGTTGCAAACTTCTCTTGCCTTCTCTGTCCCTCC  
AAGACACGTCATGCTGACACCTTGTCTCCCATACCCAGGCACGGTGTAGCTGGGGTTGCTGCAGCAACAGCACACAAGG  
AGTAACATTTCCAGTGACTACAGTGGCTGGGATGAGTCAGTTGAACATTTCACTGGGTTTTATTAGTGTATGATGCA  
GTCCCATGTCTACAGTTCTAGCCTGTCCAAGACTTACACGGGATGATGTGGAACACTCCATGCTAATCACCTTCA  
AATATTAGATGGTCAAGGGTTCTCTCACTGAAGTCACTGCATTGCTGGTTCTTCCACAGCACCCCTTACTAATATCTA  
CAGTAAGAGGCCAAAAGTAAACTCAGGCCCACTGCTGGAACACCATTCTACTATTGCATATCTCTGTGTGCCTAAAA  
AGCAACAGTGACCTTGGCTGATGATCAAGAAGCCCTCTTTTTACCCAGGGAGTTGGACAATTGTTAACATCCCAGAAG  
ACATATTTTTAACCAGTTGCTGGGAAGAACATGTGCTGAAGTATAAGGATGGAATCACTGTAATCTCTATGGGAAGT  
CATGAAAGTGGAACTTGCCGTTTAAATATTGAACGACACTGAGCACAGAGTTATTGATGATTTCTAATGCGGGATTGGT  
TTATTTTTCAGACAGGAGATGACTTGATTGTGACTCCATTGCTCAGGTAAGCACAGCTTGGTGAATGGGCAGGTTTC  
TCACAGATGTAAAAATTTAATTTGGGGAATTAGTTCCGGTTATTAAATTTAATTTAATTTAATCAAGCACAAGTACAA  
ATACAAATTCTTGGTTCAATTCAAGCAATTCAAAAGCAATGCTAGAGAAAGTGAATTTGGCTATATTAATCTTCCCTA  
TAAACCCATAGTACCAAAGAGTGTCTTTGCTTCAAATAATAAATTAGCTAAGGGATATACCTAATTGGGCTCATACTGA  
CATAAGCACTAGAAGCAGAAGGCTATATCATGGCTTAAGTTATGTTTAGTATAATTAGGTACATGATCAGTGCCTGAAA  
TTCAATATTCCAATTCAACCCAATACCTTATTTATCTCTTTTTTACATATGCCATTTGTGCAGAGATTTAGCTGAGTGA  
TGTGTTGATGTTTACTTCTTCTTCTAGGCATACAAATCATGAAAATACCTTAACCACATGACATATGTGCAAGCAGGT  
GATAACATGATCTAAAATGTTTGGGAATATAAATATGAAAGAGTTGATGACCAGATGTTCTATGTATAGACCAATACTT  
CTCAACCTTACCTGCAGCTTAGATTAACTAGAGCTTATCCAGTGCAGGCTGCAGCCCTGGTCAATTAAATC  
CAAAAATTTGGAGATCTGTTACAAGCATCTGTATTGTTAAAGGCCTTAGTATTTTTCTAGTGTGCAGGAAGTTGAG  
AGTCTCTGGTATAGACAACTAAGGGCGGAATGAGATAAACTGATTTAACTGGGGCATGAAGCAGGTTTAAACCAAC  
ACTGATGAGTAAGAAATGTTAAATATTAAATGCAAGTAATCCTGAGAGGTTGTAATAATTATAATCAGGCCTATATCA  
TACATCAAGGTGCTCTTGCACCTTGGCAAACTCACTTAAATTTTCTGGGTCTCTTTTTTTCAACTGGTAGAGTTAGG  
GGACTGAGCTGGATGAAAGACAGTCAGATCTAGTTAAACCCCTTTCACCGCTCTTGGCCAACTCAATGGACTTGAGCGA  
GTCATGAACTTTTCCAAGCCTGGTCTCTTCTCTGTTAAATAACAGTTCCAAGAGTACCCACCTCATAAGATTGCTAA  
GACACTGAAATAATACCAAGCTTATAAATGCTAGGCACAATTGCTTGAATAATAATATTATAAAAACTTTGTGATTG  
GTTTAAATGTATAGAGCTGAAATGTTCTTTTCAATTCTAAATGTCTAAGTATTATTTTAAATGGATAATAGGGTT  
TAGATAGTAGGATTATGTATAGTTCTACTTTTTTAAACTTTTCAAACCTTTTATTACTGTAACCTTAGACCTATAATATA  
TCAATTCAATGTAACATAATGTATAATAGTAACTTTTTAAATTAATGCAGGCAATTAAAAATAAATACAAATCACCAT  
CCTTTTCAGATGGTTAATATCTTGTGTTGCTGAAGTTTTGCTGGAGATTATGAATCTTCTAGTACCTGTATTTCTGT  
GTCCAAAAATTTACACTTGTATGATTTAATAATATGATGTGATAGCAAAATCTTATAAAGCTGAGGGTTTTTAATTGA  
TTACTATTGAAACTTTATGGCCGGGTGCGGTGGCTCGTACCTGTAATCCAGCACTTTGGGAAGCTGAGGTGGGTGGAT  
CACCTGAGGTACAGGAGTTTCGAGACCAGCCTGGCCAACTTGTAGTAAACCCCTGTCTCTACTAAAAATACAAAAATTAGC  
CAGGCATGGTGACGGGTGCTGTAATCCAGCTACTTGGGAGGCTGAGGCAGGATAATTGCTTGAACCCGGAGGTTGAG  
GGTTGCAGTGAGCCAAGATCATGCCACTGCCTCCAGCCTGGGTGACAGAGCAAGACTCTGTCAAGAAAAAAGGAA  
AGAAAGAAAACTTATAATTCTATATCTAAGACCTCAGAGAGAGGTGAACAGACAAAATATGGCATAACAATGTAAGTAA  
CATCATCAACATAGAACCAATCATTCCAATTTGAGTTCATTCAAGTAGCTATTCTTGTGTTCTAACCAATGATCTAGG  
TATTATTATAAGAAAAATATATATAAATATTAAATAACAAATGAAAAAGGTCTGTGTATGATATATGGTCTTTTACA  
TTAAGTAAATTTTATTAAGCTGCAACAAATAGATTAGTAAATTTGGACTTGAACCCCTGCCATCAGTGTCTTAAATTCCA  
AGGAAATCTAGTCTTTTACCTGATTAGATATTTTCTGTAGTGTACCTATAATCTCAAGGAAAAAAGTAAATGGAATT  
TCAAGATATTGGGAAATACACACATATATGTAATTTAGTCCATGTTAGTAAAGCTATTAAATAAAGAGTGTGACTT  
AATATACTTGAATTTAGAATTGGAATATAAATCAGCTGTATAATTTATAGGCATATCTGATGCCCTAAAAATAATCCCA  
TAGTATATTAAAGTCTTTGCTTATGATTAGCTAAGTGACTCATAACACCTTGTAGAGAGTGGTCATTACTTGAGAGGCTG  
CCGATTTTTTTTAAAGGGGCTTCATCATGGTTTTTCAAAATGGCCTTTTACTGGAGTATAAGACCTGGAAGCCCCACTA  
GAATTAACCAACAAACAAACAAACAAACCTGTTAAGCCCTGAAGAGTTTACCACCTCTTCATAGAGCATCTGTGGGGAGG  
GGTTAAGAGAGAAGTCCAGTGAGTATGTTTGAGTGGCCTTCTCTTAAACCCCTGTTGGACATGATTGGCATGTTTTGCT  
GACCAATCACTAACTTCTCAAATTTTCTTTAATACAAAGTAAAGCACTTACCCTTAATGGTAAAGTGTATTTTAGCA  
TTAACTATTAAAACTAAAAATATAAGATACTTATGTCACTTGAAGTGATACCAATCTAATTTGCTCTGATATACCATA  
ATTGCTTTCACCAAGGACAGAAAAAATGGAATTTAGAAAAGTCACTCAGAAAAATATTTAGCCAAAGTAGGCCAAAGA  
ATTACCTCTTTTCTCAGCATGCTTTGAAAAATGGAATTTCACTAAATTCAGTGAAAAAGCTATGCTTCTCAAAAA  
GACAAACAAACAAACAAACCTTTTGCATAAAAGTTTAGAAAAATAATAAGAAAAAGAAAGGAAATTTTCTAAATTC  
CAACCCCAAAATAACTGCTACTGACATTTTATTTATATCCCTTCAGATTTATTTTTCTGTGCATATTTTCTGTCCCA  
TGGCTCTTAAAAATGGCCTTCCCTGTCTAAGGTGTTCAAAGATCCCTCCCAATCCATCTCATCTTCTGCCTCTTCT  
TGAGAACTCATTTCTTTATGCTGAGTCCATCTCCAAACAGCAATCATGGTTTCCAAATCATGGTTTCTTCTTGACGTG  
AAAAGAGCAAAATCCTAAATTAGAGGAGAAATTAGGAAGCCGTGCAAGATAGATTGCATTTTTTGGCCAGGCTAAAG  
CCTGAAACATCTTGGATAGTAATTTTCAAGAAAGGATCCTATAGTATCTCTCCATAGTTTATCCCATTTGTCTAAACACT  
GTCAGGCTAGAAATCTTGTGTTTAACTTAACTCTTTTCCACCTCTGATTTCTTATGCTTTTCCCTGTAGCT  
CAGAATCCCTTGGTCTCAGAAAAAGTGACAGCTTTAAATATTTTCTTATTTCAATTGTTAAAGTATTCTCTTGTGT  
TTGTGTTGAAATCTTTTGGTGTGGGTGTTTCTTAGCACGAAGGCTAGAGAGGAATCCCACTGGAGTGACGCGGCAAC  
TGACCTTTTTTCTTGGCCAGAGTTCTTGGGGGCCAAGGAGCACTAAGGAGGCACAATGCTGATAAACTGTAGGAACT

Fig. 6.305

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CTTCTCTGCTGTCAGCTGCCTCCGGGCTCAGTGATCCAGGATTTGTGACACAACCTACCCCTGTAGTAAACCTCTAAGTT  
GACTAGAATTTTTCATGTGGAAGTGTGTAATGTTAAATGAAGTAGACTCTGATGAAAGAAAGAGAAAACAGGAAAACCCA  
AGCATATGCTGGATCCCTGGAGAAACCCCTCACTTCATTACAGACTAAGGAGATATCCCTGATTTGAAAATACAGAGGCG  
GGAGAATAAATTGAACCCAGGAGGCAGAGGTTGCAGTGAGCCGAGATCGCGCCATTGCACCTCATCTGGGCAACAAGA  
GCAAACTCCGCTCTCAAAAAAAAAAAAAACAAAAAAACAAAAAAACGCGGTAGGAACAACCTACATCTCTTTACCT  
TTACTCTAACCAAAATACAGCACCTGGGATACTTCTAGGATAAAATATGCAGTAGTTATTAATACTATAGAATATTACCA  
TTTAGTTGGTAATAAAATATAACCAATATTCTCATATTCTGCTGCTCCCTCAGCCACTTCACCCAGCAGCAACGATCT  
TGTGGCCTCATCACCATCCTCAAGCTTGACAGCTGTGCTAGGCCCTCCCTGCCAGGCTATGAAAGAAGATAGTCACCTC  
GTTTCAGTCGGTGCTAAATTTTGTAGCTTTTCTTTAGCCTTAATTAATTTAAATTACAACCTATCTTTCTGGACATCTA  
AGTTCTTTTTTAAGAGCGAACCATATAAAATTGTCTATCAACCTTTTTCTGGTGTACAAACCAGCAATTTTCATAGGGTTA  
AACAAACATAACCTGGAAAGAGGTTTCTTTTCATAAAATGACCTTTCTATTTTGTAAATAAGCATAAATTGACTCC  
AGCTTTTTCCGGAGGTAAACCGAAGTAATGATCTCTCCAGTGCGGGTCGCGCTTCCCTCCGCGCTCAGTGCACCT  
CAACCTCATGGTCTGTGTTTTACCGCCATCTAGTGGTACAGTAAGATATATGTTTATGAAACAATCCTCGAAACCAT  
TATTTTCTCTTTTTTTTTTAGGCTATGATGTTTCTAGCTGTTTAAAGTGTAAATGATAACCGTATTTTCTGCTATTTTCA  
GTGATTCTTATTGTTTAAATAATGTTTAGAAGCACCTAAGAAGATCCGAGAGTAGTGACGTAAATAACATTGAATCCT  
TCCCCATGGGCTAATACATGAACCATCTTTGTCTAAATTTTTCTGTAAACCTACCAGTATTTCTTCTTAAGGAATAT  
ATATTCTCATCATTTCCCAATGTAATTTTGACATTGACTGGCTATACCTTCTGCTTGGTGGGGCAGAAGAGAAAGAAATG  
ACCTTAATTTTCTAACCATTGAGCTCTGTGGAAGAAACGTCAGGGATCTTTTGGTTAGCAAGCATTAAAGGATGAAGGA  
CAACTGTAAAGGAGCCTTAAAGCTTTGACTACAGTTCTTAAAGAGTCGAATTCAGGGGAAGGCGCTGCCCTGAAC  
AAAAGCAAAAGAACATGGAACCTTAACTTAGGGCTTCAAGTAAGATGTTTATAGTTCTCCCAAGCAGCTGCATGAACA  
GATGCTCCCTCTTTGTGCGCTGCAATGCAAGGTGAAAGCTTAAAGACTAACACAGTGATAACAGTGATGACGACACCA  
AGAGTCAGTCAGCGAGGCCCAAGACAACACCCCTTATAAGATTTGTCTAGAAATGTTATTTTACACTTCTGCCAATAGC  
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AAAAACCCACACACACAATAAATAATCTAATACTGGCATGCCTAGGAAATAATTTCTCTACAAGATTATTTATTGTC  
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AGGAGAGACCGGAAGACAGATTCTTTTTTCACTTTTTATTTTGAAGTATTTTCATATATATAAGGGAATATAGCTTGTA  
ATTATGTAATAATAAAGAATAATACTAAATGAACAGTTTAAAGAAATAGAACAGTTATCAGTATTTAATGTCTCCCTG  
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GAAGGGGAGACTTTTTGCTTTTATACTCTTTTGTTTAAATCTGAAGCATGTGAAGATATAAATTATACAAAAATACATA  
AATTTTAACTAAAAACAAAGACAAAATAATATTAAATTAGATTACTTATTAATTTAGAAGTTTATTATAATAGAGGCA  
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GAAAAAAGTTGCCTGCATTTCTATGTCTATTTACCCAGCTGTCAACTGCAATGAACCTTAACATTATGTATTGGAATA  
AAAATCTCAGAAATCTAGGGTTAAAAATTTGCTTAGGAAGGGGATCAATTAGCTGGTGCAATGATTTTATCTTAAAGT  
TTCCATTAGTATGTTTGATATTCACTTCTTAAACATAAATTAAGCTGCAATGATTTTAAACGACAGTGGATCATTATCC  
GATTACTTCTGCATCATTTCAAGATTTCTATGCTCAATGAAGACATCGTGGTCTGATGTGACAGTCTGGCCATTTGAAT  
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AGTTAATCACGGTTGGCTTCTTAGGAAGCAGCATTAACTCCTTTAGGGGAAAATTCTCTAAGTCACTGTCCCAAGGCGT  
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GTCTTAGAAAAAAATTAGACTGATTTTAGTCTAGGTCTGTGCCAGATGAAACATTTCTGAAAACAACTCTGGAACTT  
TGAAGCAATTAACCTTTGGAGACTCTTGAATACCAATGTCTAGGCATTAAGTAAATTTCCCAAGTGCATGCCAAGTCA  
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TACAACTGCACCTAAGTGTGGGAGATTCTTAGTGTATATGAACTAAGTTGCAAGCAATCAAGTTTCTCTTAA  
CAAACCATTTCAAGTGTATTTAAATGGCCTTAGCTCAAGAAGTTTCAAGAATCCTTTCTTGTGTAGGCTTTGGCCA  
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GTGTTGTTGCCATGTTGTCTGTGTATACTAAGTCATATGATGCTGTTAATTTTCTATAAACTTCTGTTGTTAGTGGT  
TCTAATATCAGAAATGAAGCAGTATGACAAATAAATATGGTGATTCCATCTGTGAGAAATCACCTGGCATGATCAGTCC  
TCCGCCAGTTATTTTACACTCAGGGTAACCTTATAGTTTCGGCTTACTTCATAAATTAACCGTGGGTGAATAATCTCAT

Fig. 6.305

[illegible]

Fig. 6.30B

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GAATAAACTCAGTTTGGGAGGGGAGAGAAGTTAATACATGCAGAAAAAGTTCAATGAGATCAAAACGTTGGGATCT  
ATAGATGTTTTGGGAAAGAAAAATAGGAGGAAAGATGAGAGGAGCCAAAGTGATATAAAATATAAATTATCTCAATTCCTAT  
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GCGCCACTGCACTCCAGCCTGGGCAACAGAGTAAGACTGTCTCCAAAAATAAAGAGAAAGAGAGATGAACAATAACAA  
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CTTCGGCCTGGGTGACAGAGTGAGACACCGTCTCAAAAAAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG  
AGTTCCGAATGTGATGAGGAACCTACCAAGTGTCTTCTCTATAACCTGTCCCAATGCTGACATTTTTTTGTTCTCTA

Fig. 6.302



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AAGCTAATTTAAAACTGGTAGAATAGAGGTAACAGTAAATATTGGTATGTACAGCTTCTTTGGTACATTTTCATTTATGA  
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GAGCCGAGATGGCACCATTGCACTCTAGCCTGGGCAACAAGAGAGAACTTCATCTCAAAAAAAAAAAAAAAAAAGTGAA  
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ATATGGAATAATGTTTGTATTTTAAAGGAATACATAAATAAGTCCATGTGGGCAATAGGCACACATTTAATGCACATTTA  
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ACATTGAATCTAGTGACAAACATGTTATTTCTCAGGTCCCAGTTGTTAGTTTGCCTCTCTTGCCTAGAAAGGGCACTG

Fig. 6.308



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GTGAGACCCGCCCTAACAATATTTCAATATTATGGTTCACAGTCCAGCATTAACTGTATTTTAAAATAATAATATCTC  
TCACATAGGGCAGCATTATTTATGGATTATTGAGCCTATGACAAAAATGTTGTATTATCCTTCAGATGATCAGAAAACTA  
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GGAGTTTGAGGCAAGCCTGAAACACAGTGAGACCTCCATCTCTACAAAAAATTTTAAAAATTAGCTAGACATGGTGGTG  
CACACCTGTAATCCAGCTATTCCAGGAGGATCATTATGCCAGGAAGTTGATGCTGCAGTGAACCATGATCATGCCAC  
TGACCTCTAGCCTGGGCTACAGAGCAAAACTCTGTCTCAGAGTAAGAAAAAGCTACCACATGAATAAAAGATCTCAGTGT  
CACCAGTCCACTCCTGCCAGCATCCCTTCCCGCTGCCCTGAGTTTAAAAAGAGCAATACTTCCCAAACCTGTCTCT  
GATCAAAGGAATCCCCAAGGGCTTCTTGAGAACAACCACAAAATGACTGATTCCAGACTTTCCAGAACTGAATGTCTA  
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CCAGGGGGTATAGGATCTTCAATTCCACACTTCTCTCTCTGACTCTTCTGAAGTGCCCGTTGTACCAGAGTGCCCA  
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AAACCATTCTCAAGGGATTTTAAAGAGTTTTTAAAGAGTATCATAGGACTTTTAAAGGCAATTCAGAGCAGGGAGCC  
CTAAATCATTACAATGATGGCAATGTGTGGAATAAGCATATAAACACATTTTCCAGATGCAACTTTGAAGGAGACAA  
AATCTGAATCTAGGCAGTTTGTGAAGGAAAAGGAGCAATTTCTGGGAAATTTCTTTTACCCCTCAGCCAACCTCAAGA  
CAGTCTGTCTTTCTACAGACCTCCCTTGCTGTTTCTCTTTACTGGAACTGTTGAGGGTACTGGAAAATAAGGAGAAG  
GCCAATGTATCTAAGACCAGTGATCAGAGAGGAGCCCAAGAACCTTCATCATTTCCACAGAAAGGGCAGCAGAGGAAA  
TTAACCTGGCCTTTTGTCTGCTATTATTTCTCAGTGAGTCTAATAATTATTGTGGCACACTAAAAGTGTGTCTGCTG  
ATCTGTGTTTTGAGGATTCCATACAATTTCCCTTGCTGGCTGCTTATCACCTCCCTTGAATAATGGTGTCTCAGCAA  
TGATCTTTGCTTGAATACAAAAAACCACTGCTCATTAAATGCAAAATCTTAGTGGAAGAATATAGGAAGAATT  
CTGAATTCCTGAGAATTAGTGGGGCGACAGGTGGTGGTGGGGGTGCTGGAGGACGAGGTTTGAAGGAATCAGTGCATC  
TTTACAGTGCTAGAAGGCTACAAATCAAGGGGAAAGTCTCATGGCAGGAGTAGTCGAGTGAGATCCCACAACCTGTTCT  
TAGTTTCTTTGTCATTATTTCAAGAGTCAACACAGCAGTGAAGGGATCTAATTTGTCTTGTGTTGCTGCTGGGCTTGGC  
TAAAAGAGAACAGGCAGGTGGCTTCAGTTCTACCAACTATGTTATAAAATGTGGTAGTAAGAGCTGAATGATGGGACC

Fig. 6.30<sup>9</sup>

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AGATTTTGTGGGTTTCATATTCTAGCACTACGACTTACAGATGCTGTGCTCAAAACAATTCATTTAACCTTCCAGAGCCT  
GAAATTCCTCACTTTTGAAGTAAGCACAAATAAATAATTTATCTCATAGGGAGTTTCATGAAAATTATTTGAGGAGATAT  
TTATGAAAGGCTGGGCATGGTTTGGCTCAGCGCTGTAATTCAGCATTTKGGGAGGCTGAGCGGGCAGATCACTGAGG  
TCAGGAGTTTGAGACCAGCCTGGCCAAACATGGTGAAACCTGTCTCTACTAAAAACACAAAAAATTAGCCAGACATGG  
TGTTGCACACCTGTAATCCCAGCTCCTTGGGAGGCTGAGGTAGGAGAATCACTTGAACCTGGGAGGCAGAGGTTGCAGT  
AAGCTGAGATCGTGCCACTGCACTCCAGCCTGGATAACAGAGGAAGACTCTGTCTTAGGAAAAAAGATATTTATGA  
AAAATGAAGCAAAATGCATGGCTCACAGTAAGCACTTGATCATTGCTGGTTAACTATTATTAAGATTATCTAATAGGGA  
TACAAAGTATATTCCTGAAAGAAATTAGGGTGCTCTTAGATAGGGGAAATAAATGCTAGTAGGATTGGTTTCAATGCAC  
TATTTATTTTATTAATTTATTTCTCACTGAATTTCTTTTATGATACTCATTTTTTTTAGAGATCCAGATGGTACCTGT  
CATTAAATGATATCCCTGAGAACTCACTTCCCTGGAAGCACAAAAATAATTTGACCATCTCATCATTTGATCCACACACA  
TTTATTGATGCCTCTTTTATGCTTGGTTCTATACAAGACGCCGTGACGTGTGGCCCTGTAGGAAGTCTGGCCCTCTGT  
CTCTAAATCTGTCTCTCAGCCCAACCCCTATTAGATTATCTGTGCCCTCTGCGTAGCCATTCACTTCGCCCTGGGTGC  
AATCATGCCTTCTTACCCACGTTTAAACAAGTCCAGCCTAGCAACCTACATCATGCCATCCAACAGAAGGAAGGCATT  
ATTGACTCAGAACAAAGTATAGGCGCTCTTAGAATAAGTTTATTAATCATTTTTTTTAAAAAAGATATGTGCTTTTT  
CCCAGGGGAGCAGTGAGGCATTGTCTAGAGGGTGGATTCAATTAATCAATACAGAGAATCCTGGCTGCACTATTTGTTAG  
CTATTGACTTTGGGAAAGTTATTCTCTGAGCCTTGATTTCTCATTAGAAGACGGGAATAATAGCAAACTATCTCAGA  
GCATTAAAGTAAGAATTAATGAAGTGAATTAAGCAGCAAACTAGCATCTGACGCATAGTAGGAATAAAAAAGAAATA  
CTAGTTCTTGAATAAACATTTTTTTCTTGACTGTACTGTGATACTTCCATCAGTGAAGTTTCCAAGGCAATGAATCATC  
TTTAGAATTGGAAGCTCAATGTAAGCAACAATGAAGTAAAGAAAACAACTGAATTTCTCTTGAATTTATTTTCTTTTAC  
TGACTTGTCTTTATTGTCTGTGTTTCAAGAACTAGCTCTGACTGCAAAATGTCTGCCTGTTTCTATGGCCAGTTCT  
TTTCTACATGTTTTAAATTCCTAATTGTGCACACAATCTTAGTCACAATATTTTATGTGCAAGCAATTAAGACTCATTT  
AACAGCCCTCCCTCTGGAAGGTTTTGTTCTCCATCTGCCACAAATCAGATTCCTTAGGAAGATATTTGATTTTGAACA  
ATGTTAAAGTACTGTTTCAATTTGTTTCAATTTTCAATTTATGTATGACATTTTAAAGTGAATGTAATGGACAGCCACAAA  
AGCTCAGCAGCTGGTCAAAACAAACATCAAGTCAACCATTTGAAATGGGGCAAAAAAATTAATAATATGCTGGGA  
CAATGCCAAATAAAAAACGATAGTCTGATAAACATTCTCAGACACATTTTGTCTATAAACAATTTCTTCTTACAGCAG  
ATTTAAATATGGAAGAAATAGGAATATACCCAGTTGCCACTCTGAATCTTAGCTGTCTGAGTTCACTGCAATGTATA  
TAATAAGGAAGTCAGAAAGTGGAAAAGAGGAAAAGATTAAATTTGTAAGTTTTTGAAGATATATGGTAAAAAGTAGA  
GGTATCCAACAGATTTGTACGATAGATTGTTTCAATTAAGGACCAGGAGCGGTGGCTCAGCGCTGTTATCCAGCATTTTG  
GGAGGCCAAGGAGGGCGGATCACCTGAGGTGAGGTTCCAGACCAGCCTGGCCAAATGAGAGAAACCCGCTCTCTAT  
TAAAAATACAAAATTAGCCAGGCGTGGTGACATGCTGTAAATCCCGGCTACTCGGGAGACTGAGGCAGGAGAAATCGC  
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CAAAAAAAGAAAGATTGTTTCAATTTAAATCAATTCGATTGGCCAGGCACGGTGGCTCACACCTTACCTTACAGCAG  
CAGCACTTTGGGTGGCCGAGGCAGGCGGATCGATTGAGGCCAGGAGTTCAAGATCAGCCTGGGCAACATGGTGAAACCC  
CCGTCTCTACTGAAAAAAGTAGCCAGGCATGGAGGCATGGTGACATGCCTGTAATCCAGCTACTTG  
GGAAGCTGAGGCACGAAAATGGCTTGAACCCGGGAGGCAGAGGTGAGATCATGCCACTGTACTCCAACCTGGGTGACAG  
AGCAAGACTCTGCCCTGAAGAAAAAATCAATTAGATAAGTGAGAGTGTATATTCAGGGCAACTTAAATCTATG  
CTCTCAGATTAAAAATAAGATTTAATACAATTTTTTTTTTTTGTATGAGGGTCTCACTTTTGTCTCAGGCTAGATT  
GCGGTGGCACAATCAGAGCTCACTGAGCCTCGACCTCTGGGCTCAAGCAATCCTCCACCTCATCTCTGCTTACC  
TGGGACTACAGGCACATAGCACTGCACCACCATACCTGGCTAATTTTTTAAATTTTTTTTTTTTATAGAGACAGATC  
TCAGGATGTTGCCAGGCTAGTCTTGCACTCCTGGGCTCAAGTATTCTCTGCTTGGCTCCCAAGTGCTGGGATT  
ACAGGTGTGGGCCATCACACCAGCCAATTTGAAGTATTTAATTTTAAATGAAAAATTGATTAGATAATAGTTCTC  
CCTCACTACAGGTGAAGTCTGTTTTTATTTATTTGTTCAATGGGCTCTTTAGAACATGACATAGAAGGCAATCCTTGG  
TCAAAATTAAGGCAGAAACAAGAATTTATTAGGTTCTGAACATAAATAACTGTCTGTGAACGGTAACCTCTTAATTAAG  
CATAAATGTGAAAAGAAGAGGATTAGCTCTTCTTGAGGAGTTGGAATGGAATAATTACAATTTGGAGAGGTAGCTTG  
CAGAAACCGTACAGTTTTCTCTGCTTATATGCCCCAGCGTTGGGAGACTTGAAAGGAATCACAACCAAGTTAATGCAA  
TAAATTTCCATATATAGATCAATTGGATGTTTTGTCCCCAGCTTCTTAGGCCCTTAAATAAAGTGAATTTTGGTATC  
ACTGGATGAAAGGTTCTGTAAGGTTCAAAGTATTGTTATTTGGGGCATTACACCTGCATGTTTAAATGCTTTGTG  
CAGAAATGTAGTCCAATCTGCTTTCAAATCAGACCTTCAAAGAAGGTTAGATTATCCATGTGACAGATCCCTTAGGTG  
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GCACCTCTGAAAAGAAAGACCAAGAGAAAATTTAGTATCTCTTTGCTGGAGATGCAAGCAAGATATAGAAGGAAGTGG  
AAAATAGTTCTTAAGTAAATACAGGGGAAAAACGGAATTTGAGAGGACGTACTTTTCGCTAACAGTTGTAACTAAAAA  
TAAATTTGAAGCAGCGCTGCACCTCACTGAATGGACTTCTCTTGGCCAGGGCACTTTAAATTTAACTGAAAG  
ACTGATTTAGGCCGCAAGGAAGTCAGACATGCCTTATTTTACCCCTCCAGTATTAACATCACCACAGACCTTAAGTCT  
GATAAGAAACATTTAGGATCTCTTTTCTTGAAGCCTGCTACCTGGAGGCTTCTATCTGCCTAATAAACCTTTGGTCTCC  
ACAATTTTTATCTTAACCCAGACATCTTTTCTACTGATAATAACTCTTTCAACCAATTGCTAATCAGAATATGTTGAA  
ATCTACCTGTGACCTCGAAGCCCTCCCCCACTTTGAGTTTCCCGCTTTCCAGCTTTCCAGATAGAACCAGTGTAAT  
CTTACATGTAATTGATTGATGTAATTTCTTCTTAAATGTACAAAAACAAGCTGTAGCCTGACCACCTTGGGCACATG  
TCTTCAGATATTTTGGGCTAACACAATGAATATGAAAAACTTTTTTGTGGCGGGGTGGGAGGTGGGACGGAGTCTC  
TCTCTGTGCCCAGGCTGGAGTGCAATGGCGCAATTCGGCTCACTGCAACCTCCACCTCCTGGATTCAAGTGATTCTCC

Fig. 6.340

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TGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGCACACGTACCATTGCCTGGCTAATTTTTGTCATTTTTAGTAGAGACA  
GGGTTTCACCATGTTGGTCAGGCTGGTCTTGAACCTCCTGACCTCATGATCCACCCATCTCGGCTCCCAAAGTGTGGG  
ATTACAGGGCGTGAGCCACCACACCCGGCCAAAAACAATTTTTTAAAGAGCATCTAAGCTCAGAAATCACAGGCATA  
TTACGCTGCCACTAAGGGAGTTAGTTCCATTGAAGGATATAATTAAGAGTGAAATGAATGGTGTGCTAAGCACTTAGG  
GATAGTGGTTTACAAATTTGTCTGTTCCCTTAAATCACCTTGGGGGGCAGGCGTGGTGCCTCACACCTGTAATCCCAGC  
ACTTTAGCAGGTCAAGGCCAGAGGATCACTTGAGGCCAAGAGTTCAGACTAGCCTGGGCAGCGCAGTGAGATCCTGTT  
TCTACAGAAGATAATAATACCTGGAAATTTCTTTTTTAAATGCAGCTAATGAAGGAAAAAAATCCGAGGTTT  
TGAAACCAACTCAAAGACAACAGCGATATTCAAGCATAAGATGTAATAAAGGTTGTACACTAGATAGCTAGATAGCCAG  
AATAAAAAGGAAGAGATAGTTACAAAAAATAAAGGAGATAAATGTATAGGATTTTATAACTGCTAATCATATGATTT  
TACTGAGTAGGTGTAAATGCTTCTGATAATGTGTGAAATTTATAATCCTTCGTATTATATGTAGGATAAACATAGGT  
TAAGACCTGGATTCTAAGGCTGAATTTAAGGCTAGTTTATCTCCATCCTTAGATTTTCTACATTTTATTAAAGAGAAA  
TGTCCTGTATATTGAATATTCATGAAATCTCTGAAAGGTGTTATGCTTATTCTTAACCTCTTAAAGGTGTACACTGAA  
TGTAATTAATCATTTTTGTCTGGCTCTGGTTCCTCATGAACATCTGCTTTTGTACTTCCCTGTCACTTCAAAATGCAC  
TAGGAGCTAATGATCTAAGGACTTTTTTTTCCCTTACAGTAACGAGCAGCAAACTGGCTGCACCTTTAATTTCTCAT  
CTGCTGTCCCATATTGTCTGGTGGTCAGTTCATGATGTTACTAAGCTTGGCTTTATTGGCATCTTTTGTGAGCTGCTGC  
TGCTTTTTCTTGGCAAACCTGATTACCAAGCTATTGCATTGAGCATAAAATAAAGGTAAATTAATTCAAAATAAAGT  
GAAGGTTGAGGGCAATTCATTTCTGAGGTAGACCTTTAGGATATGAGATGCATAAAGTGAACAGATCCTACAAGTGT  
TACTTGACTTTTTCTGGGTTCTTTTCCCTACTTACTGATTTTGAATAGTATAAATTCCTGGATAATTAATCTGGATAAG  
TAAGTCGTCACTGTACCTCTAGAGAAAAATAAATCAACCAAAATATGTTAATCTGTGCTCTGGGTTTCAAGAAAA  
AAAATGAATAAGATATAGTCTTACCCCAAGGACTTGACACAATAATGTACATGTGCAAAAGAAATCCTGTGAGTG  
TGGTGGCTCACACCTCTAATCGCAGCACTTTGGGAGGCTGAGGCAGGAGGATCACTTGAGCCTAGGAATTTTCAAGCCAG  
CCTGGGCAACATGATGAAACCTTTTCTCTACAAAAAATAAATAAATTAGCCAGGCATGGTGGCACATGCCTGTAG  
TCCTAGCTACTGGGGGAGTTGAGATAGGAGGTTGCTTGAGCCCAAGAGGCTTAGGCTGCAATGAGCTATGATCAGC  
ACTCCAGCCTGGGCAAAAAATCTTAAGTAGTCTCAGGACTGTACCACAGAGTATCGTAAGAATTCAGAGGAGGCAAGA  
CCAAATTAGAATAATAAGCACATGAAGGCTTCCAGCAGAACATGGTATTTTGTGGGCTTGAACACTCTTTAGATGC  
TTTAGTTAATGTGCCATAGTCACACTTCTGTATTGGGAGTGTTAATGGGTGATAACTACTCCAGAGCTTTAGGATTTG  
CTTCCAGTATCCCAGCAAAGCAGCCCTTTTCACTAGAACCGTTTGCTATTACAAAAGAGAGGTGATCACTTGTGATTT  
CTTAACATTTCTTCACTTTGCTCTGGCACTGGGCTTCTGAAAGTCCAGGAAAGAGCAATGACCTCAGGGTTTTAAGAC  
CAGGGGTATAATCCCAGCTCTGCCTAGCTCTCTGTGTAATTTTTGGTTCAGTAATTTAACCTGGGTTGTGTTCTGTAAAA  
TGATGATATTGGATTAAATAGTACCTAATCATCTAATTTTTCTAATATTTTATTATTATAAAAAATGCATGCCTCT  
GATGAATTGCCTTTATCTTCTTTAGTCATATTTCCCTAAGAAGTGAATAAAGATACCAAGGCAATGTGTGAATTCAC  
TTTTTCAATCTGGATGTTTAGGGGATATCCTTGACACCAATTTGCTATTTTGAGTTTTCAACAAAGAGTTAAAGAAAA  
TTCTGGCACTCCTATCTAGTCATCCTCTCCAGTTGGCAGAAGTCTTCATGTGGACTTGATGGTTGCCAGAGCAACAAA  
ATATTAGGGACAGAAACATGTTTCCAGGACTCGATTGTATAAGTGACTCAGAGCTGAGAGACCTTTTCCAGCTTGACTGC  
AGCCCATACTTAGCTAAAGTGGGTATTTGTCTATTCTGTCTGCACTGTGACTTGAGATGCCTATTATTTTGTCTTG  
CTAAAATATGGAAGCCAACTTGAACCTGGCAGAGAAGAGTTAAATGATCAGAAGGCAATCGTCTTCACTCAGCACGTC  
TGACACATGAAAGATCATTAGGACTAGCAAAATAAACAAGATCAGGGAGTGGTCTTGGGCTTTGAAGAGCACATACCA  
AGAACATCAAGAGAACTCAATATAAATCAATATAAAGCTACTATTCAAGGCCAATTATCTCTTTGAGTTAGAGAG  
CCCAATGGAGAGCCACTCACGCAATCAATACCCTTTCTCTCTCAGTTGGAGCCAGACATCTCTAATATCCTCTGA  
ATTAACTGGATTTTTTAAATGTTTTTCTGTCCCTAACTCTTTAAATCCTGAGGTATCCTTTCTTTGTTCCATCAGT  
CTGGCTCCATGATACCAATTACTCCAGCTTGTAAAGCAATGTTAGGCTATGTTAGTCTTTTGTGTTCTTATGCA  
ATGTTTCTGTGAGCAAGAAATGGAGGGAGAGTATAGCTCAAGTCTTGTGCTTTAAGTCTCCTCTCTTCACTGTTTA  
ACTAGGTTCCATCCTAATTATGTGTTTGGTGGTTTTATTTTGATACCAATATACATTCTTCTCATTTGTACATRAAC  
AATGTCAATTATGGTAATAATAACAATTATACAATATTACTTCTGTCTCATTGAATGTCAATTATGATCAGGAGCTGGT  
CCTCTTGGTTTGGACATTATWATTTGAAATGAATATTCTTTTAAATGATTGGAACTTAGTCGTAAATTCAGTGGTT  
TACAATAGTAACCTTATCCAGTAACACAGCACCTGTTTAGAAAAATGTCTTCGGATCACTTGTGTTGCAATGTCTT  
TTTCTTAGGATCCTGGATGGAATTGAACCCATATACGTTACTTGACATGTGAAACACGTGTGACCTGGCAGATGATT  
TGGCTGACCTTGAAAACCTACAGCTGTTTAGTCACTTTGAAAACAATGCAATACAAAGTATTACTAGGCTTCAGTTTTA  
ACCATTTTATGCTGACTGGTGGAAATTTCAACCTTTCAGAAAGAAAAAAATTTGTGAAGCAATGGAAATGTACCATCC  
TGGGTATTAATGTCAATTAATTTTCAATACATTTTCTCACAAAAAGTATAAAGAAGTCTTTGCTTGACCTTACGGGAAAA  
AACACATACATGTGGCTTTATTTTGCTTTTTTTTTTTTTTAAATTAATGAAGAAATCCAAGATTGACTTTTTGTTTCTT  
CTCTACCCAAATCAAAGCAGTCTATAATCTCTGCAAGATCAAAGCTTTTTGCTTACTATAAAGTATGTGCCCTGCT  
TAGGCATTACATGGTAGAAAGATAGCATTCTGTTCCAAGAAATCTCTATTCTGTTCTAGTTGCTGTGTATATATCTC  
TTTTAGCTAGAATATGGTTAGTAAATGAGTCTGAAAATTTTCGCTGTATATACCAAAACATGTTGTATACCATAAAT  
ATAAAATATTTTATTTCAATTTTTTAAATTTGTGCTTCAATCAAGACAGAAGTTGATTTCTTTTCCAGAAATTCAGA  
GTGAGCAGTCCAGGGCTGTGTGGCTGTCTTAAATACCAGAGGGCCAGAGCTTCTTTTCAAGATAATTTTTTTTTTAA  
TTTACTAGATTCTATAGGGCTTTTGTCTTCTGCTGTGAGTACTACAAGAGCCCTAGCCATCACAACTAAGTGGCCAG  
CAGCAAGAAGGAGGAAAAAAGAAGGAATAGTACCCACTCTTTTAGAAAAGGCTTCTGAGAAATCCACATAATGCT  
TCTACTTACATCTCTTGGCTCAAATTTAGTGTCTGCCACAAAGAGAATAAGACACACACACACACACACACAC  
ACACACACACACACACATATATATATATTTTTTWTTTTTCTGGCAAGTCTCTAGTTTCCAGGATTTCAATCTCCTTTA

Fig. 6.31<sup>7</sup>

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AGCAAATGAGTCTTCCTCTAACCTCTCCCTCTGGCCTGCCAGTCTCTCTCGAATCTCATTGCCATCCTGTCTCTCT  
 ACTCACTTTGGGAAATCCAGCTCTGTCTAGTCTTTACAGTCTGCCTTTTCCACTTCTCTTACCTGATTTCTCTGGGAAAAAT  
 AATCCCACATCACTTCAAGCTGGAATTTCAACAAAGTCAAGACCTGTACCTCATCGGACTCTCAGAGCACTTGACAGT  
 TAGTTCCTGTCTGTGCCCTCTCTCAGTCTCTTTATGCTAAATTTCCAAACCTGTCTCTCTTAAAGCCTCCCAACCAG  
 CAGCTCTTCATCTCTTTTTCAGCAAATACTTGTGCTTTTTGAAGAAAGTCTGTGTCAAGGCATGAACCTTCTCAGCTC  
 CTACATCCTCTTGCCATAGATGTTATCCATAGGTCTCTTACTGACATCCATAATCCCTTCTCCCTTCTGGTCTCAGCG  
 GATGACGTTTTCCCTTCTCCCTCTGTCTAAGTCAACCCCTGCATCTGGGCCCTTGATCCTCTCTCTCTCCAGCTCCCA  
 CAAGTCTTGTCTCGTCTGTTTTCTTTCTATCTCTCACAATCTTCAATCTTTACTTTTATTCTGGCTCTTTCCCAATTC  
 ATGTCTCTCACAATCTTAAAAACAATACACAGCAAACCACAGCAAAGTTCAGCCAACTCTTTATTGATCCTTTAGCTAG  
 TTCTTGATCTCTCTTTTTCAGTCAAGTGTCTCTACCTCTCATGCCCTATTTCAGTCTGCAGTCCACTGTAGTACGACTTT  
 CTCACAACACCTCTGTTTCCAGCTGCCCTCCCTTGGTTGCCAATCCCTAATTGTCTTCTTAGTTCTTAGAGGCTTC  
 TTCTTCTTAAACTCTTTCTTTGTTCATTACTGAGTAAATATTTATTCAACATGTTTTTGTGGAGCCATTTTGTTC  
 AGATGTTTTCCACTCTTCTTGTCTCTGAATACTTCTTTTCACTATTCTTCATGGTCTCTCTCTCTCCCACTTTAC  
 CTCTTAAATGTGAGTATTCTAGAATGTTCTTTTTGATTAAATGGTCTCTCACTCTGTGTACTCTGTAGATGTTTTTCAT  
 GTACCTCATAGTTGTATTTTCCATCTTATGAAAGTGGTCCCAAACTCTGTCTCTACTCAGAGTAGGCACTTCCCAAA  
 TTTCCAAATTTATTACACAAAAGCCCAATGTCCATTGATATCCAACCTCTTCAAATCCAATATGTCCAGAGCTGGACTC  
 ACATATTTCTTTGCAAATCTGTTCTTCTATCTCAGTGTAGTGAACACTTTTAGCCAAAGATCGAACTTATAAATCATG  
 AATCCTTCTACCAATCTATCTGTCTGTCTATATATATTTTGAACACAGAGTTGTCTCACTCTGTTGCCAGAGTGGAG  
 TGCAGTGGCAAGATTTAAGCTCACTGTAACTCCACCTCCTGGGTTCAAGCAATTCTTGTGCTCAGCCTCCCAAGTAG  
 CTGGTATTACAGGTGTACACCATCACACCCAGCTAATTTTGTATTTTGTAGTAGAGACAGCGTTTCACTATGTTGGCCA  
 GGCTGGTCTCGAATCTTGGCCTCAAGTGATCCTCTGTCTTGGCCTCCAAAGTGTGAGGTACAGGTGTGAGCCACC  
 ATGCTCGGCCCCAAATGAATACAATTTTTATTTTATTTATAACTATTGATCAAATCCATGCTCTCTCTCTTAACTGCT  
 TAATATTTCCCTAGTTCAAGCACTCACCAACTCTCCCTGAATTATAGTACTAGTACCTGAAATAGTGTTTTGAACCT  
 GTCAGTTGCAATTTAGCATTTTATTTTAAAAATATGATACAGAAATTCGTAATAAAGAGTATAAACCACATCTATA  
 ATATCAAAGATAAATATGGTTTTTAAAAATTTATGATACACCCACAGACATGCAACACACACAGACATTTTGCCATGA  
 AAATGTATTTCTTACTATAATTTTAAAAATTAGAGAACTACTTTCTTAAATGGTCTGATCTCTGTTGACCTCTCTTAG  
 CTCTGGCCTTCCATGATGCCAGCAAATTTATGTAGTTGAAAAATTAATCTGCAAATGTCACTCTTCTTAAACCTTTTC  
 AAGCCTTCCCATCATCCATGATAAAATCAGATCTCTTTCGTGTGGTACCCAAAGCCCTATCCAGATATGATTGTACC  
 TCCTCTCCAGCCAGCCCTGGCTGACTCTTTCAGCAGCAAACCTTTTCCACCCACGTGCACCATGTTTCACAACTGTC  
 TTCATTTACTTGTACTCTTCTCACCATCTAAAACCTCGCTTCTCTCTCATAATTGCCTGGTTCACTTTATCTCATTTTAG  
 AGGACACCTAAAATCAAGCCAGTCCCCCTTCTCAGGCCAGTCAAGGCTCTTCTCCCAACCTACCTCTAGCATAACC  
 TAATGAAATTTGCTCTAATAAATTTATGGTCTATGCTCTTTTATAAAAAACAACAACAACCAAAAAAACCCTGCC  
 CACCAGTATAGCAATTTCTTTTGTATTAACACACATAGTACTAGTGTGTGGTCTGCGGCACTGTGCTCACTTACC  
 TGTGTTCAATAGACCTGAAGTAGGGAAGATCAGCTGACTCTTTTACATCTCTTCTCAGAACATCTTGAATGATTCTTG  
 GGTGCAATATAAGAGCAAAACATGGAACAGTAGAAACCAGCATGGAACCTTTTCTCTCTATTGAGAAAGTGGGATGA  
 AAATGTGTCTCTTAATCCCTTTGGCAGAAGGGAGTAACTTGAAGAAGTGGATGATGGATGATCTTCTCACTCTGTCA  
 GCCCTCTGAGCAGAATGAGGAAAAATGTGAGAAGCGATACCATGCTATATTTGTTTCATTGACCATTATTTTAAATAAC  
 TTACATGTCCTGGAACAAGGACATGTTTTTGTGAAAGGACAACTTTCTTTTGGTGTGTCCGAGTAGCATTTAAGAAA  
 AGCCTTATAGTGGTCAATGAAGTTGGCCTTTCAACCGCTGCTACTGGAGAGTCTGTGAGAACATTTATTTCAGCCT  
 CATGGAACACTAGGGAGTCACTGCTGGGATCTGACAACCTGTGCAGCACCATGCCAGGTGACAGAGAGTTGTTGTGAT  
 GAATGTCGAGAGAGGTGGTGGGGATTTTTTGTGTTTTTGTCTCTTCCATTTTCTTCTCTGACTTGGGCTGTGGTT  
 TCATTCTTCTACCTCCCCACCCCTATGCAAGAATAGATCTCTGATCTCTTCTCATACTTTATCTGCCCTAACTTCCA  
 CTTTCTCTTTCTTGAGAGGAGAAGAACAACCTCCACAGTGCTTCTCTTTTATGTTTGGGCTAATTTTGTGTGTGTTT  
 TATGCTCTTGAACCTGAGAGCTGCCTCAGCACTCAACACCAGCCCTGGACTGTGAGACTAATGAGAAAAGCAAAATGAC  
 TTCAAGTAAAAGGAAGTGGTTTGTGTTGTGAGAGAACTTGAAAGAAACACCACCAAGAACAAGTGGGCTTTATTT  
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 TACAGTAAAGAGGTAGGGCAAATAAACAACCGTTTTTGGATGACCGGTTTAGCTTCATGTATCTTCTCTTACTCA  
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 ACCTTTAAAAAAGGTATGTTCACTCAACATGTTTTTCCAGCTGTTATTAAAGCAGGTAGAAACAATATAGTAGGCAT  
 AGAAATCTTGATTATAATGTGGAACAACTAAGGTTAAATTTATAGCAGAAATACATTTCTTTTCCATCCTTCCACTGT  
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 TTTGTTTTCTCGATCTTCTCTTTTTCATGTTCTCTACTCTATTCTCTTGCCTTTTTCTTTCTTCTTATATCTGCCCTC  
 TTCTTTTCCAGTCTCTTCTCTCTCTCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTC  
 TCCCTCTTCAACCTATTCTC  
 AGCATCACCCAGTCCAACCTCTGTCCATCTGTGATTCTCTCACTTCTGCTTTTCGCACCATCTCTCTCCTAAGGTAGAAG  
 TGGTGCCAGCTTTTAAACACAAGGCAAGTGAGGGTATGTTCCACTAGGACAGCGTGTGTCACTCTGCTGCCATACACA  
 GGGAGTACCATCAGTGATTATAAAGAGGAATTTCAATTCCTGCCAGAGGCTCACAATTAGGTTATTGTTGATGTTTCA

Fig. 6.312

[illegible]

Fig. 6.313

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TCAGCATTCTACTTATTTTATCAAAAGGTAATTTTTTCTCAGGAAATAAAGCAATAGGCAATTGTTTTTATAGTT  
TTTCTGTACAGAGCCTTATTCAATTATACTACCAATGTAATCCTATTGCACTGCTCAACAGAATCAGAATAAGAAGAAC  
TTCCAAGTACAATTTGAAAATAAAAGTATCTTTCAAGAATTTGCACTGTACTGCATTATTTGATTTGGAAAAA  
AATCAGACCACTTCCATTCTTGATGAAACAACCTAATCTTGTCTAATTTTAAAGATAAATTTTAAAGATAAAT  
AATGTGGCACTTCCATCATACCTTGCTGTAGTACCACCTCACTTGTCTAATTTTAAAGATAAATTTTAAAGATAAAT  
GATTCGTATGCTTCAAAATCAAAACGTGCCCTAGAAAGGATCGATTATTAACAGCTTCTTGTTGATTTATGTAACAAA  
TCTTATGTCATATACAAGCAAAATACATATTGGCTAGCACTCTTAAACATAGGAAGGGTTGAATCTGACCAAGTTAAT  
ATTTCAAAGGTGCTTATCAGAAAGGAAAGGAAAGCTTCTACAGTTATGTGTATATTTTTTTTAGTTTAAAGAAAT  
AAGAACAAGATATTGGGTGTGTATGTATATATGTATCTATTTATTTATTGGAGACGGAATCTTGCTCTGTCAACCCAGGC  
TGGAGTGCAGTGGCAGGATCTCAGCTCACTGCAACCTCCACCTCCCAGGTTCAAGCGATTCTCTGCCTTAGCCTCCCG  
AGTAGCTGGGACTACAGGCGTATGTCATCAGGCCAGCTAATTTTTGTATTTTAGTAGGGACAGGGTTTACCATTGTT  
GGCCAGGCTGGTTTTCAAACCTCTGAACCTCGGGTATCCACCCAGCTCAGCCTCACAAGTGTCTGGGATTACAGGCATGA  
GCCACTGCGCCAGCCAGATTTTGGGTTTTAAACCTATTGAACCTTATCTTTGGATACATATTTTAAAGTAACTTAA  
TGTAATGTGTTTTATGTTCACTAGAAACACCACATGATTTGCGAGACATGGAATTATGTAGGTGAAATCAGCGCTTTC  
AATTAGGGCTCGATAATATTAGATATAGTATAACTTTTATGGCATTACACATACTCTTCAGGGATACCTTTGCAATT  
CCGGAATAGTGTTTTTCTTGCTTACTTCAGTCTGATTTCTTATATCTTTAGGAAAGATCTGCACATTCTTCTAGGTGAA  
TGTAATGTGCTTTTAAATCCATTCTTGGGAATCTCACTTCTTAAATCATGCGGAAAGATAGATGTACATTTTAA  
GTAACCGAGCTGTTCACTAGAAACACCACATGATTTGCGAGACATGGAATTATGTAGGTGAAATCAGCGCTTTC  
CTTCTCTGTATGCAAAATCCAGAGAAGCAGCAAGAACAGATGAAAGATTGGAAGAGCACACATTTTCC  
AGCCTGCCAGCTGGGTTTAAATTTCACTTTCCCAATATTTACTTGGTAAATTCAGAAATCACTGGACCTCCAGGAA  
CCTCATTTCCATTACTGTCTATGTGGGATAGTGATAACACTATGGATCATTAACAATTTAAATTAGACTGTATGGAGAA  
TGCTCCAAAAGCTAAATATTAGTGTCTCAGAAAGCATTCAACAAATACACCTTTCCAGTTGAAATGATCATTCCA  
TTAAATTCACCTTTATTTTCTTGAGAAAAAATCTATGCTTCTGCATTTTCAAACCTTACTTTTCATGGATACATAG  
TCTGTAATAAAAAACAGCATATTAACATACCTTTAAAGAACAAAGACATTTATAAAACAATAACAACATCAGCTTCT  
GGATGGTTCCCCCCCCCCCCCATTAACCTTATTAAGGGAATACGGTCTCTAAAGGGAAATCCAGAGACCTGTGT  
ATTGAGTTATAACCTGGGTCAAGCACTTAACTAGGCTGATATTTTGGCTTGATGTGATTTATATGTAACCTTTTAA  
GCAATGTATATTAATCCGTACTTTTTACTCATCTACTTGATTGCAAGCTCCTGCAAGATAAACTTTGTTGAACCTCAA  
TGTTGTAACTTCATGGGGCTTAGATATAAACTACAGACTTCATCAGTGTTTAAACAATACTTGCTTGAACCAACA  
GTCCTGTATATCAGCCAATTAACATATGAAGCTAATTTTAAATACTGAAATATCATAGAGTTAATATTTCAAAACACCA  
CTCATCTTTTTCTCATTTAGTATTATTTATTTTGTCTTCTGGAGACATACGTTTACCCTTTATTTACTGTCTC  
ATTTTGTCTCTGTAACATACCATTTACAGCTTTTATGTTATCTGGAATACTTGTATGAAATATAGGCTAT  
GATGGCTAGAAAGGATCTCACTGATCATCTAGTCAAGGATGATTTTAGAAACAAGGAAAGTGAACCCAGAGACAGCCA  
GTGACTAGTCTCAGTACTCAGAGAGGTCTAGGTTGGTCAAGGTCAGAACTCACATCTCTGACCCACAGCAGCTTTGG  
CTTTGTGCACAACTGACTGCCTTAGTTAAGGACAGATAATCTTTTCTTTTAAACAATAGAAATTAGACTAATTAAG  
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CTCTATAGGGAGGAAAGGATGAGATGCAATTTAGAAACAAATATTAACGTAAACAGAAAAAGAGAAAGCAATCATGA  
CAAAGCCTAAGAGGGCTAGTGGATGCTAGAATGAACCTATTTACCTTCTTTGATATTTAGGGGCTCTATTGCCTGCT  
AATTTCACTACTGTTATTTTCTTACCTCTTATCTTTTCCCTGTAGTTATTATCAGCCTAATATTCATTCATTCATTC

Fig. 6.314



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ATTACCTGAGTTTTTCAGGCTTGTGCAGAGACAACAGGGTGGGGCCAGGTTGCAAGATTGTGTTCCCAACTTGGAAGTA  
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CACATAAGTCAAATATCCATTTATAGTTTAACTCTTCTCTTGGCCCCCTAAAAATAGAAGATCACTTCTGATTTTAA  
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GCAACCTTCAAAGGATGTCTCCTTGGCCCTAAGATGTAACATTGTTAACCTTTTATGACAGAATCACGTCAAGGAATA  
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GCCCTTCTCACTCTTGTGTTCTTTAATTAGACCCAATGTGCAGGACATGACTTGACTGAAATTTATAGCCACATTGAGA  
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CCTAGCAAAATATTGGTTAAATGACTGAATGGATGATACAGGGGGCAAAATAAATATGGTTTATAGAAAAGTGGCATGGCT  
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GCTTGAATCCCACTTTTGGGAGGCGAGGAGGAGATCAAGAAGTCAGGAGATCCAGACCATCCTGGTTAATACG  
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GGCTGAGGAGGAGAAATGGCGTGAACCCGGGAGGCGGAGCTTGACGCGAGCTGAGATCTCGCCACTGCACTCCAGCCTG  
GGCGACAGAGCGAGACTCCATCTCAAGAAAAAAGAAAAAAGAACTTTCCCTCTTAAATATTCTGTTTAAATCT  
AAATTAATTTTATAGATACCATTTCCATTTTTCTAATGAATAATACTGTATCCTTCTCTATCTATACCATGAAGTTTTT  
CTTGGCCTTGAAAACCCATTTAGATTTATGATTTCTAGCCCCCAAAATAACTTTTGTTCCTATATCCAATTCCTTCCCT

Fig. 6.315



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CACAGTTCCTTTCACAATAGCTTCTTTCTCTCTGTAAACCCTACATAAACTCCAAAAACATTTCTAGTTTTGGAAATCC  
TAATCCAAGAGGTACATCACTAACGCAAAACGTAGAAATCTTTGTACCAAGGACAGAGGTGCAAGGGAAGTCGGGAGT  
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CGGGAGTAAAGTGTTAATAGTTTCTTGCATATCTTCCAAGAGATATTACAAATACTATTCTGCACCAAGCTCTTTGTA  
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TACAATTAATACAAATAACACTGCAGGCATCCTTGTGCTGAACATCTTTGTGAGTTTACCATTGAATAAAGCTTTAG  
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CAACA  
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AACATGATCATTCTACTTGTGGTTTGGACTGACAAGGACATTTCTAGTATATCTTGTGACATCAGGTTAATAAGCT  
CTAAGCAAAGCTGAAAAATGAATGCTACTTCCCAATCAAGTGGAATGTTAATATTATCAACATGTCTTAAAGGCCAT  
GAAGTCCTATGCCTGTATATGTAACAGGAATAGCAAAAGGAACTTTTCTTAAAGGAAGATTAACTAGTGTTATTTT

Fig. 6.316

[illegible]

Fig. 6.317

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ATTGCAGCGCTGATTAGGAACGGGGAGTCCCTTTGCGTTTTGAGAATCCGGTCCACATTTTGTCTGAGAGCCCAGGCACTGT  
GAATAAGAGGAGCCTCTGAGGACTGGTTTCTGATCTCGCACTAGGCATGATAAGAATGCCATTGACGTGACGACAGAGTCA  
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TCTGAGAATCAAATTGCTGAGGTAAACTGATATGCTTTAAATGTGTGTGTGATGAAGAGATTACAAGGGAGGAATTA  
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GAGGTTTATAAATGGAACCTTCTTCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT  
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TTGTTCCCCCTGATTACATTTTCCAAAGGTTATACCTTTTCCACAGTTTCTAAGGTAACATGTTGATTGACTTGACAG  
TTGTAGAAATATTAGGAAGTGGTATAAAGCCAAGACCATGTTTACTAAACAGTGTCTCTTTTTTTTACATCATAACAG  
ATGAGAAAGCTGGTGTCTCAGGGAATTTAAGCAACTTGCCAGAGTCACGTAGCTTAGAAGTGTAGAGCCAAGATKTGG  
ACCCAGTCTTTCTCACTTTCACAGACTTGCTTTTAAACACTGTGTTATGCTATGCTGCCTCAGTATAGCTCCTTTCA  
AACAAACCACTTCCAGTCTCTGACATGCAAGCCAGAAGTTTTCAGATTTACAATGGCATACTTTTTTCTATCTGCTA  
AGTGTTAGATGTACGGTGTCTGCAATGGAGTAGAGCTTTAGAAATGAGGATAAAACATTTGGTTTGTAGTTAGTATTA  
AGAATCCAATATCCAAGGCAGGAACTTGGTAATTAATTTTTTAAATGGACTGGAGGGTACAGGTATTAAATCAA  
TATTTTGTAGGCAAGATAACAATGTAGGAACAAATAATTGGAGATGTTTAGCAAAATTATGAATTAAGTATGATATA  
ACGGCAGATTATGAAAGGGAAACAAAGATTACCTGGGAAGAGTTTGTGTTTTAGTCAACTGAATTAACAGAATGGGCA  
GAAAAGGAAGTATCAAAGAGGGTCTGCTGATAGAAAATTAATAAAGAAAGATGCCATGGAAACGTTTTTAGTGC  
AAATACACTATTGCTCATGGCTGAAGACAGAAAGAGACTATGTGTGACTTCCAGATGAAGTTACGCATAGAGGCAGG  
GCTAAATAACAAGCACATAGACCCGAGAATTTCTCGTTGATTGATCTTTGAAATTCGGTATAAATATGATCAGTTCAA

Fig. 6.318

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CCATGCCTTAGCTACTGGATCAAAGGAGACATCTACCGCTTTGGGAGATAGGAATCTGGAAAATTGACAGACTGAAAA  
AACCAAAACCAAAGAAAAAACAACAAAAAACAGAGAATGCAGAAATGCCATTTTAAAAACCTAAGAGGCTGTGTC  
TGATGTTACAGGACTCTTTGACTCCATTAGTCTCAATTCTAATATTTAAGTTAAGTGATTGTGGGCATAGAAATTTTTT  
CAAAACCTGTTTTCGAAATGAAGGCTTCCCATACATTGAAGTTAAAAGTGGTCTTGAGAAAAGAACTTCTTAATAGGTAA  
GGGGTTTTACTTTTGAATGTTGAAAATGTTTGAACCTAGATAGAGGTGGTGGTTGCACAACATTGTAAATGTGCTAAAT  
GCCACTGAATTTCTGACTTTACTATTTTAAAGTTTATGTGATATGAATTTCACTTCAGTAAATATCTTTGTTGGTGCA  
TAATTACTGTATATATTTATGGGGTTCATGTGATGTTTTGTACATACACAATATGTATAATGATGGAATCGGGGTATT  
TACGGTATCCATCACTCAAGTATTTATCATGCCTGTGTCTCTTTCTAGCTATTTTGAATATGCAATACCTGTTG  
TTAACTCTAGTCACCTAATCTGCTATGGAACATTAGAGCTTATTCTATCTGTGTGTTTGACCCATTAAATCAATCTCTT  
CATCCCCCTCCCCCTCCACCTACACACTCCTCCAGGCTCTGGTATCTATCGGTCTACCTTCATGAGTTCAAGTTTTTTA  
GCCCCGTGCATATGTGAGAACATGTGATATTTATCTTTCTGTGCCAGTTTATTTCACTTAACATAAAGATCTCCAGTTC  
CATCCATGTTGCTTGAATGACGATTTTATTCTTTTATGCTGAATCATATTCCATTGTGTATACCATGTTTTCTTT  
CTTTCTCTCTTTCTTTCTGCTTTTCTTT  
GTGCAATGGTGCCATCTCAGCTCACTGCAACCTCCGCTCCCGGTTCAAGCAATTTCTCTGCCTCAGCCTCCCAAGTA  
GCTGGGACTACAGGCGAGTGCCACCATGCCCCGCTAATTTTTGTATTTAAGAAGAGATGGGGTTTACCATATTGGCC  
AGGCTGGTCTGGATCTCCTGACCAGTGATCCGCCCTCTCGGCTCCAAAAGTGCTGGGATTGCAGGCATAAGCCACT  
GTGCTGGCCGTATACCAATTTCTTTATCCATTCTGTGAGGGACCTTAGGTTGATTCTCCATCTTTGCTATT  
CTGTATAGTGTGCAATAAACTTGGGGATGTAGGTATCTCTTTGATACACCAATTTCTTTCTTTGGATAAAATACCCA  
GTAGTGAGATTGCCGACATAGTGGTTAGTTCTATTTTATGTTTGTAGAAATCTCCATGCTGGTTTTCTATAGTGGCT  
GTACTAATTTACATTCCCACTGGTGATATGTAAGATTCCCTTTCTCTGCATCCTAGCCAGCATCTGTTTTTTTT  
TTATTTTTTATTATTTTTTGCATTTTAAATAATAGCCCTCTAACTGGGGTAAGATGATATCTCATTGTGGTATCAATTT  
GCATTTCTTTGATTATTAGTGATGTTGAGCATTTTTTCATATTGGACATTTGTATGTCTTTTGGAGAAATGCCTATT  
TATGTCCTTTGTCCACTTTTAAATGGGATTGTGTCTTTTTTACTATTGAGACGTTTGAGTTCCTAATATATTCTGAATA  
TTATCCCTTGTGAGATGAGTAGTTTGCAAATATTTTCTCCCATTTAATAGATTGTCTCTTCACTCTCTTGATTGTTTG  
CTTTGCTGTGCTATACAGAAATTTTAGTTCAATACAGCCCCATTATCTATTTTTGGTCTGTGGCCTGTGCTTTTGA  
GGTTTTAGCCATAAAATCTTTGCCTAGACCAATGTCCTGAAGTGTCTTCTGTGTTTTCTTCTAGCAGTTTTATGTTT  
AAGTCTTTAATCCATCTTGAGTTGATTTTTGTATGGTGAGAGATAGGGGCTACTTTCACTTCTGTGTTATGGGTGTC  
CAGTTTTTCCAGCATCATTTATGAAGAGATCTCCTTTCCCTAATGTATATTCTTGGTGCTTTATAGAAAATCAAATG  
TATCTATCATTATGCTCTCTGTCTACTCTAAATCTATCAGTCCACTCTGTAAAAATGTGGATTGTTTTCCAGGCTCTCT  
GTATTATCCATTGGTCTATGTGTCTGTTTTATACCATGTTGCTTTTTGTTACTATAGCGTTGTAACATATCTTGAAGT  
CAGGTAGTGTGATATATTCACTTTGTTCTTTTGTCTCAGGATTGCTTTGGTTAGTTGTGCTTTTTTTTTGGTTCCATA  
GAAATTTAAGTTTTTTTTTATTCTGTGAAAAATGACATTGGTTTTGATAGGGATTGCATTGAATCTGTAGATTGCTT  
TGAGCAGTACATAAATTTTTTTTTTAAAGAGAAAGGAGAAAGAAATTGGGCACTAAGTACATCAGAGTAGATGTTTAT  
CAATTTTTTTAAAAATGGTCTTGGCTACCATAAACTGTGATGTTCTTGAGAGCTTACATTGTCTTGTGTTTGGGA  
ATTGTTGATACTCAAAGTGCTGACACATAGACTTGATTCTATGTATTTAATCAATGAATGAATGGATAACTCTGACC  
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CCTTGAACAAAATTAAGTAACCTTCAGCTTGTTTTATAAAAGTGTTCTGTGGAGAAATAATGAATCTTTTCAGATTT  
TAGAGTGTGCTGATTGATTTCAATTTGCATTTTAAACCATCAGTCTCTGTGGAACCTTTAGTTTATAGGTAGGACTTT  
TGATTGAGCTTGGTGGCTCACACCTGTAATCCTGGTGCTTCGGGAGGCCGATGTAGGAGGATCACTTAAGGCCAGGAGT  
TTGAGACAGCCTGGGGAACAGACTCTACTAAGAAATAAAAAAATTAGCCAAGCAGAGTAGTGATGTCTGCAGTCCCAA  
CTACTTGGGAGGCTGAGCCTGGAGGATCCCTTGAGCCAGGAGTTTGAGGTTACAATGAGCCATGATCCCACTGCA  
CACTGGCCTATGCAGCAGAAACAAGACCCCATCTCAAAAAGCAATGACACACAGAAAAAGCAGAAATTTAATTTGTTCTG  
CTCTGTCTCTAGCACTTCATATCCATTTCTCTGAATATGAACAGTGGGAAAGGTAGTGAATTGAAATGGATCATAGA  
ATGTTTCTCTACTGATAATTTTTACTCCATTTGGAGTATGATTGAAGAGCTAATGTCAAGATGCACAGCAGGACTCAA  
TGATTGAAAAATAGTGTTACTGATGTAAAAGTCACCATATTTAAGCTTTCTTTATGATAGTCTTCCATTATTTCTTTT  
GTCATATTAGCACCCTGGAAAAACACAAGTTATACGTAGGGTAGAAAAATGTAATGACAAATTTGGTGTTTTATAAACAA  
TAATAAATCAGCTTTTCATGAAATTAGGCTATGCTCTCTGCTCTGGTGTAGAACTTACTTTGCTGAGCTCACTAAAT  
AATTTATTTCAATTTCCAGATAAATGTACTTCTGTGGACAGAGGCCATATGCTGGTAGCCCTATACAATATATAGAGA  
GCATAAATTTCTCTCTCTCTCTGTTTAAATTAGGATTTTTATAAAATGCATTTTATTCTTATTTTGCTTCTCC  
ATCATTAGAAAGATTCTGGATCTGTAAACCAAAAATAATAGTAATAAATGATAATAAGATTTTGGCAATTTAAAGA  
GAAATTCATTTCTGTAATATGGTCACGCCAGCTATCTTTGAACCTTAAAGGAGGCAGGAAGAATTTGAATTAAGA  
ATTTTGGAGTATTACAACCTCATTGGTTCTCAGAAGCTTTTTTTAATTTTCATCTTCTCCACGCCAGTTTATACAATTC  
TTCATGCTCCTCACTTTACTTTTATATTTTCTTAAAAACAGTTTTAAATGTATCTCTCCCACTCCCAAGTCTCTGG  
CTCTCATGCCTTACTTTACTTTTTATATTTTCTTAAACAGTTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTT  
CCTAAGTTTTATTTGTGTGGTATTAAGCAGAGACCAACAGAACTGTGAAGACTTCTTGGGATAAACCAGGTTTCA  
CTTGAATTGTGGTGGCTCTGCCATTGGTGTGGAAGCAGGGCAGAAAGAGACAGAGGCATACCAGCAAGTACAGACATC  
TAAACACAAAGAGAGGAGAAACAACCTCAGGGATCTCCTCAGTGCTGGGAAGAAAGCAAACTTAAAGTGCTCATAG  
AATTGTAAATAAATCTCTCTCTCTTTGAAATTTATGTTGATGGTGTGCTGTGTAGTTGCAACAGTGTCAAAAGTCCAT  
GAGGCCTATTTTTTTTGTAGTAATCAATATTGTGGAAGAGTGCTAGAGCAGACCTACCTTATATAAATTAATTTGTTTGA  
ATTGCTCTATTCATATGAATAAATATTATTGGAGTACCTTCTATATGCTGGGACCTCAGCCATGAGATACGCAGGT

Fig. 6.319

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GGAAAAATAACACTTAAGCAGCTTATTGTATAGCAGAGAGGTGGTTGAATTGATAGACAATTAAAAATACAACGTGTTG  
AAAGGCCCTGTTAAAGCCACAGGGTCACTCAGTGGCAGGAGGGATTTCAGTCAGCCTGGGCCAGCCATGGCAAGTAAGTGG  
CCTTTGGAAAGTTACCAAGGTAAGACATACCTGATACGTTCAAGAAACAATTCCAAGGTTCAATAAGGCCAGAGTTAA  
AGGGCAATGTAAGCCCTGGAACTGAGGCTAGAAAGGTAGAAGGATCTCTTTTACCACACACTGTGCCGGGCCACCATG  
AAGAATACAAAATAGCTAGCTATTATGGAGCCTACACTTTAATGTGTGTACATAGATACATGTCCATGTTGGAATTTAA  
CTCCTTGAGAGGTCATGAATTACTTAGTCCCGAAGCATTGTAATTTTATACTGGAAAGCTATAGTAGAGAGTTGACAAA  
ATATTTTAAATGTAGTAAGAAGATTTGACAATCTATTGTGTGGTATGCTAGCAAGCCAGTTCTCCTTCTCCTTTTCT  
CACCATCCCACCACCCCTCACAAAATAAAAAAAGTTAAAAACCTGATCTGCAGTGTGTTGTCTATGGCCATGGTGC  
AAATACTCCTCCCATGGCTGGTTCCAAGCTACCACTGGTTCAACAGTTCTTTTGCAGAATTCTTGAATCTTTAACTT  
AACAAGATCCAGTTCCAGCATATTCCTGCAACAGCGATTCTGCAGTTCTCAATGTCAAATAATAGAACCAGAAAGTCAT  
ATAAGTACTACAAAGAAGAAGAGAGAGTTGAGAGCCAGCTTAGCCAGGAAATGCTCCAGGGGGAAGTAAGGCTTGAGTT  
GGGACTTATAGATAAGAAATGTAAATAAAAAAGGAACAACACTCCACCGTATGCACAAATATTGGATCATGTATGTG  
TGTGACAAGTGTGGCCGTCTGTAGTGGAGGGTCCAGGTAATAATTTAGGCCATGAAAGCCTTGGTCTGTCAAACATAAT  
ATTTTGTACATTAAAGTTAGTAGACAGCCATTAAATGGTTTTTAAAAACAGATGGTCAATGATGTTTGTGACAAAAGC  
AATTTTAAAGGAAGATTTGTTTTTATAAAAAAGTTGAATTATTGATAGCAGTGAGACCCAGAAATAGAATAAGAGACCT  
GCCTCATGTAAGTGAGAGTAATTCAATTCAGCAGTAATCTTGAAATTTGTAACCTCTGTGGTGAGAAATTGTATCCTG  
GGATGTTGGGTAAAGCCACTGTGAAGCCAAAGAAATTAGTGGCTAAACGATAGAGAAATTAAGATGAAGGAAGTGGCACA  
TGGAGCCACTGTGTACTATAAAGTATTTTATTGGTATTAGTCTTGTCTGTTATTGTTGCTAATGATTGTATTGAATAA  
TTACCAGCTGTTGTTAGTTATTTGAAATTAGGTGCTTAAAGCAACCTCTCATCTTGCAAGAAAGTCATCTTTCTTGAAC  
TTTTTAAAAACTTGCTTGAACATGGAGACTTGAATGGGAGCTCATCATAGTAGCAATGTTTGTGACAAAAGC  
CTGCTGTCAATTTCTCTCTTTTGCAGTCCACTTTGTCAACACCCCACTTCTTGTCTGCTGCAATTCAGCTTTC  
CAGTCACTTTCTCTACTTCTTGCCTGGCTGCAGCGTCATCTTAAACAGCTCTGGGTGGTATCTCCTTTACCAGAA  
TTCTCTGCAGCCGTGGAGTACGTGCAGAGCATCTTCTTTTGAACCTCTTAAATGCTGAGGGGTGTTTCCGACACACAT  
TGCTTTGTAATTCATAATAGGGCAGTTGTGGGTCTTTTTATTGCAAGTTATGCTGATTTTTTAAAGCACTCTGAGTAA  
GAAAGCAAGGTAGTAAATATACGTGTACCTCGATGCTCATTGATCAGTTTGCACATGTTCTTGCCAAATGTTGTTT  
TAAAAACCTGTCTCTGAGGCTGTGAGCTGTGAAAGTTTGGGAAATCAGGGTCAGAGGCAAAAAAATTCGTTTGTATC  
ATCGTCATACAATATAAATTACATGTAGCATATACATAGAAAACAATCCAGGGATGAGCTTCTGGAATATCATCTCT  
CTGTGTTACTCTGATTATATAATGGGGAATTGTATGCTTTATACAATTTAATTTCTTGAATATATGTGCTCAAAAAAC  
ATTATAATGTGGTTCAGTACTATATATGCTGAAAACAGGTTGCTAATGAATTTGGACAAAGATTCCCATTTTATTTCCT  
GTACGTTTACACATTTTTTGGCTGTATATTATATTACTATATATATTATTAGGACTACAGCAAACGCTAATTCATCG  
ACTGAGATAAGAAATGTGTTTTCCATTAATAATTATAAATCTGCCAGAGATTGTGAGATTTACATTGTTGGGGATCTA  
ACAACGAAAAAGTATTGCAAGTTATTTTAAACTATTATTAATTATTATGTAATCATAGATTATGGCTTGCAGAAGA  
CTGAAGAAATTGTTCAACAAACCATGTAGGTTTTGTGGAAGAGCAGTAGACTTTGATAAGTAAGCTCAGAGTGGTCCAT  
TAACCTTTTCTCTATATGTACATTATGTGTTGATAAGCATGATATCTATTATACCTCAATTATTAATAACAATATACAT  
CCTAATATTAAAGAACTTAGCCTGCAACCCCTAATAGTGTCCCCTTCTCTAGAACATAGATCAGCATAAGGAAGGAAG  
CAAAGGAGGTCTTAAGCACTCAAATAGATGTTCACAATGTTCACTCACTGAAGATAATGTAGGTCATTAGCCAGAGA  
AATGTATGTTTATATTTAGTGATGATTACATACAGCTTGGTCATGTGGTTCTAAACCTTCTATAATTGGATGAAGCAA  
ATTAAGAAAGGCTGGGTAGGAGATTTCAAGGAAAGTCACACTGATATTAGCCAAATGTGAGCTGATGGCTGAAAACA  
ACAACGAAAAAGTAAATCTACAAAATCATTGAAAAACCAAGACATAGCTATTGGGGCCCTTTTGAAGGGGCAATA  
AGCTCAACCCATCTTTGGAAACACTGAGCGCATCTGTCTGGCAACTGAGTATAATTTTGGTGTTCAAACTGATGAC  
CCCAATCATCAAAAAATACAAAATTATTTTTGCTCAATCTGTATTGCTCTTCTATATTGTTGTAAGATTCTGTGTTA  
GTGCACTTAAAGTAAGACTACCCCCAAATTTAATCCCCATCCCCCTCAATGTCTCCTCTGGACATTGCTCCATCTAT  
CGCCCCCTTCTCCTCTTTCTTTGACCTACTCTTTGATGGCTGCATCTCCTTCAAACTGGTTGAAGTTCTTAAGGAAAA  
AATCCCTTCTCTTGTATCTTCCATCAGTTATTACACATATCTCTATTGATTTTTCGACCCCAAACCTTCTA  
GAAAGTTTACACTTATCATTTTCTTTTCTTTTCCCCCACTTATTCTCTACCCCTTGAAGTTAGCTTGCAGCCCCA  
CCACTCTGTGCAACTACTGCTGTAGTTCTCTCTCTCAAAACCTTCTCATCTTTGATGAGGTCGTACACTCTTT  
CATCAAGTTTCTCTAAGTCAATTGCGAGTGTATCCCTCTCAAAACCTTCTCATCTTTGATGAGGTCGTACACTCTTT  
CTTTCTCTTCCCCCACTTCTCTTTGACCTGGGGTCCAGGATCCCATCTCCATTCTCTGCTTCTCTCACTCTGTG  
TGTCTTCCAAGACTGACTTGTGCACTTCTTATTTTAATTACCACCTGTTTGTGAAAGCCCTAAATTTATATAGAAATC  
CATCTTAACTCTTCTGCAAGCTTGGAAACCCCAATATTTATTGGAAATTCCTCACTGAGTATCCCATGGGTTTATAAA  
ATTCTTCATATCCAAACCAAAATTTAGCTTTTCTCTAAATTTGTGCTCTCTTATATATCTCAGTTGGTGACACTACCC  
AGCTATCATGTTTCAGAAAATAAAATAAAATACGTCAAAAAGCATCAAACTCTATAAATTTATCCATGTAAGGATTG  
CCACCATTAATATATACCTTTAAATCCTTCCAAATGTTTGTATCTGTATATTTAAAGGGATCATATTTGGTGACTT  
ACTGCTATAACACATTTTCCATTTAAACAAAAAATTTTCTGTCATCAAGTATACTTCAAAATTTATTTTGTAG  
TTGCTCATGTTCTAGCAGTTATTTAACTAATAATGTTAAACATTACATCATCTTTGCACTTATTTCTCTGTTGCT  
TTTTCTTAAAGAAATGACTATTGAAATGACCCCAAAAGGGTATATAATATCAGTGATAAAATTTAGCTTGGAAAG  
GGAGGAGAGAATTTCTAGTGTATGGTAGTAGCAGTAACAGTGGCCTAGTTACACTCAATATCTCAATATGTAATGCCA  
TTTATGGACAGCTTACTATGTGCCACACTCTTTAAGGACTTTGCATAATCCTCACCACAAATCTGTGAGATTGGATACA  
TTATTGTTCTTATTTTATAGTTGTGGAACTGAGGCCGGAGGAGTGAATACTAGGCCAGGGTCACACAAGTAGTAAG  
AAACAGAGCCAGGAGTCCACCTTTGGCAGTCTGTTTCCAAGATTGGTCACCTAACACAATGCTTATCTGCCTTTTGTG

Fig. 6.32C

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TACCCCTAGGGCATCCTTTCTACCAGAGTGTACCACTTCGCTTTATGTTTCTTAGAATAAAACCAATAAATAGTGCAGTT  
AGTTAGCTAAGTTTTTCAGAAATTTTGATAGATAGTGTCTAGAGAAACAAAAAGACACAATTTCTAAGATGTAGTAATG  
AATGTTTCATTTCATGTCGGTGATTATTTTGATTGTTGATGTGTTTTTGATAACAGAGTAGGCAAAAACATACCATCA  
ATTTAATAATGGAATCCTAAGTTTAGGTTTAACATGATTTTTGAAGAAGAATCAATGTGCAATGTTGATGTATTTTCA  
GAGTTATGGTTTCAGAAATGTGAATTATTCAAATCTCATATCAGAATCTAAATTTTAAGAAAGGAATAATAGAATATAG  
TAGGTCCTCCCTACCATCAATTCTACTTCTGTACCCCTATTTTATCATTTCATATTTGGCTTGCTAGTGAAGATGCCTTGTA  
TCTGTTGTATCACTGGGTATAATGTCTGGCATTTCAGAGTGTGCATGCAAGGAAGGAAAGTAAGTGAAGGAAGGTG  
GAAGGAAGAGAACAAGGAGGGAAGAAGGGAAGGGTAGACACTTTGGGAGGCCAAGGCGGTTGGATCACCTGAGGTTGGG  
AGTTTGAGACCAGCTGACCAACATGGAGAAACCCCATCGCTACTAAAAATACAAAAATTAGCCATGCGTGGTGGTGCA  
TGCTGTAAATCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCTTAAATCTGGGAGGCAGAGGTTGTGGTGAGCTGA  
GATCGCGCCACTGCACTCCAGCCTGGGCAACAAGAGCGAAACTCTGTCTCAAAAAAAGAAAGAAAAAGGAAG  
AGAAAAAGAAAAAGGAAGGGAAGGGTAGAAAGAAGAGAGGAAGGAAGGGAGGGAGGGTTGAATTATAGATTTCCCCAA  
CTGGGCCCTACCATGTGCTCTAACCATAAATTTCTCATCTCAGTTGCTCAGGCCAAAGCTTGAGAATATCCCTGTGT  
CTACTCTTTTTTAGAACATCTCGTATCTAATACATTAGAAGCTCTGAAGCCTCTGCTCTCAAAATATACCAGCCAG  
CATCCTTGTCAACATCTCCATGGTTACCATCCTATTGCAAGCCACCATCTTCTGCTGGCTTGGATGATTGCAGTGGCTGT  
CTAATAGGAGACCCTGCATCTCCTCTGCTGCATAACAGTCTATTCAAAAGACAGCAGTCAAGTCAATCATGTCAATC  
CTCTGCTCATAACCTTGCAATGGCTCCCATTTCCCTCAGAGTTAAAGTGATTATTGTGGCCACAACGTGTAGCCCAA  
TTTGACCCCTGTTTCATCTCTGGTCTTCTTTTTAACTCTTCTTCTCTCATTCACTCAGCTCCAGCCCATTAGCCTCCT  
TGCTGATCTTCAAGCACATCAGTCACACTTCCATTTTAAGACCTTGGTGCTGCATGAAGTGCTCTTTCCCGGATCT  
TAGGGCCAATTTAGCTTTTAAAGTCTTTGCTTGTGTTTTCATCTCCATTAGGCCATCCATGACCATCCATTTTAAAA  
TGCATCGCACATTAATACCATTTCCCAATGTCTGCTCTATTGTATGTATGAGTGCTTGTTCATAGCATCTAGCTTTC  
TAACACATAATTTACTATATCTATTGTTTATTATCTCTCTCTGCTACTAGACTGGAACTACCATGTGGAACAATCTTC  
GCCTATTTTGTTCAGTATACAGATATATATACACAACAGTGCCTCAGCCATGCTAGGTTGCTCAGTACATTCTTGAAT  
AAATGAATTATCGATGTACTCAGTTCTGTTACACAGATGATTGGCTTCTTTGGTTTCCCATTAAGAGCCTTGTCTTCT  
TTGCCAAATAATTGAAAGTTTCACTCAGAAGATAAGGAACATCAAGACCTCAAGCTTTGTGGTCTTGGAAAGCTGTGG  
CTTTGGTCTCTGTCTCATTCCCTTGGGATTTAGAATAGAAAAATGCAGGTGGAGAACACATTCAAACATCCCACTT  
TATCAGTATTTTAAAGAAAGAAAGATATGGCTTTTCTTCTCAAAACAATGTCTTAGTTATAAACTGAATTTGTATAA  
ATGGCCAGTTGTACATTAGGGCAGTTGCAACAATAGAAAGCATCCAGGGAACAATCATAACCTCAAGAGCCTATTGGAAA  
GTGGGATCCTAAATAGCTTTCTATGATCTCCCTAGAAAAGTGTAGAATTTCCCAAGAGAATAAGCCAGCATTTTGTGGA  
CCATTCTGCAATTCAGGATCATGCTTGCATAGTCATAGCTTGGAGGAGGCAATTTGAAACAAGTTGAAATCTGCAG  
GAATATCCCAGTGAGACCACAGAAAAGCCAGAGAAGAAAGGTGGGATTTGGGGTAGAGAACGAGCCACTTCTCAC  
TAGTTTGCATGAAGCATTGAATATCCCAAGGGAGAAAACATTGAAGTTCTATGAGACACCAAGAAAAGTGTATAGATTA  
TCACAGCATATGGATAGAGGTCAATTTGTTCCCTCCCTCTTAAAGAAAAGTAGCTTTGCAAGCCACAGTTTAGGAAC  
AAATGGATTTTGAACATAGTTCAAATCCTCTGGGTGTGGAGGCATTGACAGGAGCAATGTCAAAATTTGGTTAAAG  
TTGCAGTCTGGAATCAGGCTGCCCTGAATCCAGCCCTGCCATTTACTAGCTGTGAGACCTTGTGCTTCTTCTCAG  
TTTTCTTTTCTTTTCTTTTGTAGACTGGGTCTAGCTCTGATGCCAGTCTGGGGTGTAGTGGCACCATCTCAGCTCAC  
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AAGTGATCCACCTGCTTCAGCCTCCCAAAATGCTGGGATTACAGGCATGAGCCACGGTGCTCAACTAACCTCAGTTTTC  
ATAATGGTAAAAAGGAATACCGATAGCACCTCCCTTGGTATAAGGATTAAATAAGATAATCTACATAGTGCTTGAAC  
AATGCTTAGGCAGTGTTCTCAACAGTTAGCTGTGTGCTGTGATCAGTGTGGAGCTGCTACCTTGTAGAAATTTTAAAT  
TTAAATGGTGTGTAGTTGGAGGTTAGGAGTTACTAGGGGTATCGCCTAGGGAAGACAGTTGGTTACCCAGACAGGTC  
CTTACAGAGTAGTGTTTTCCCTGGAGAATTAACATATTTCCAGAATCTGTCTCAACCAAGCAGTCTCAGAAAGGTGAT  
CTTGTCACAGCCTCTGAGTAAGCTGATTCAAACCTCTCAAAAGCTCACAAGAGCCTTAAAGCCAGAGTATCAGCTGATT  
CTTAAAGCTACAAAGTGTTTGGCCTTGCCAACATACGCATCTCCTCTTATGGGTAGGTTTGAATGCTAAATAGT  
ACATAACATGGATTTAGAATAGACAGATTACATATGATCAGAAGGCTCAGTGGTCATAGTTTTGAGGGCCTAGGACAT  
GCATGTGAGCAGTAGGGAGATCATCAGGAGGATGGGCACACTCTCGAGGCTCATACAGGCGCTCCCTCTCTCCATGG  
GCAGCACAGGCAAGTCTCCTTTGTCTTTGATTACTTGGCAACCAACCCCTCATTTCTAATGGGAATTTCTTTTCCAAA  
TATGTTAACACCTTCAAGTAATTACTGTGAGCGTCCAGCCTGGGAGTCTCTTGGACACAGTTTTTTCATAACTCTAGATG  
GATCTCATAATTTGCCCTGAAAGATGGTAAATAATTTTACTTCTCTTACTTCTGGAATCTAAGGGGGATACTTCACTC  
TTGCTCCTTGACCTCTCCTCTCTAGATCCCAAGCCAAAAATTGTTGGAAAGGATTAAATATGAGCTGGGCCCCAATAGG  
CTACAGCATGCACCAGCCCTAAAGCCAGCTTTAGGATTGGGCGGAGTGTGAGCCAGCTTCCACCCCACTTGGCTTAT  
TCAGCGACCTCCTGCAATTGTCCTCTGCTAGCCCTTGGCAGATCAGAAATGTTCTAAAGATTGACCTCTATTACTTTGG  
GCTTTCTTAACTTTGGCATCCATGAAAAGATCCACTTAAATGCTCCAGATTCAAGTGAAGTCTCCTTATCAGAGCTTCTT  
ATAGCACCCTAATTTTTCTTCTCAGCATTTATTATGAAATGTAATCAAAATCATACTTTGTGATGTTTTGTTGTGGTTG  
CTGTTTAAATGACTATTTGTCCATGAAAGAAGGAACGTGTTTGTGTTTTTACTGCTGTTTATCAAGGGATAGAACAAAT  
GTATGGCACATACAGGATTTAACGAATTTTTTTAATGATTAATGCCCCCTTAGATAGTGTTTTTCTCTGAGTGCCCTC  
AACTTCTATGTGCATTATGAAACTGATATAGTGGGTCAACATATCAGTAAGAAAAAAGAACTGGAATAGAGTAGAAA  
AAGATGAGAATGTATCAGCATAGGGAATAACTTTTATAAATCTGTTTCAAGTATGATAGGAGGCTTACACCACACAC  
ACACACACACACACACACACACACACACACACACATTGAGTTCCTATGAATTTGTTTTTTTAAATTTCTTTCT

Fig. 6.32f



[illegible]

Fig. 6.32Z



CAATGTAAGACTATTGAGGTTTAATTTTGATTGTTTTTTTCAAAGGTTTGTGAATCTGTTAGGAACAAATTTCTAAAGTAA  
ATTGAGAAAACAAACCATCAAAATTTAATTCAGCTACATTTTTTGAGGTTCTATATAGTCTCGAACATATATTATCTA  
ATTCGATTATCACTATAAACCCCTGTGTATAGTAGATATTATCATTCCCATAGTGGATATGCAAACACGGCTGTGGGA  
TAGTTTTACATTTAGTAAGTGGCAGATCCAAGTCTAGACAGCCAGGCTGGTTCTCTTTATACTCTGCCTGGCAACATT  
TGCCTTCATCACTGTCTGTTTTCAAAGTAACCTCTACATCCCTGCTCACACATACAAATAGCTCTAAAGGTACA  
AAATAAGCTAATTTCTGACCAATTCATTTTATTCAAATCAGTCTAATGATCTGTTCCATGAAAAATGATTATGTAGC  
TCAAAGGTTCTCAAACCTCGTCTCAAACAGGGGTACGGCAGATCATTTACATAAAGGGGAGAGCTTGCCTAGCTCCAGG  
GTCAATAAAGATTCTGGGACTGGGGGTGACCTGGAAGCTACAACCTGTTTAAAGGAGACAGCTTGCCTAGCTCCAGG  
CTAGTGCTCAAGTGCCAGGATGTGGGCTCCCTATTGTCAAATCTTTTTTTTTTTTGCTTTTTTAAAGACTGGAAGAAATC  
CAATATTTAATGCGAACTTCCCATTTTTGAACAACGTGTGTGGGCCAAACAAGTCACATCTGTGGACCAGATCTGGC  
TGAGGATTGCCAGTTTGCATCTTGACCTAATTGCCCTTAATTTCTCACTTCTCTTGACCTGGTAAATACTCCATTTAA  
ATGAGTATTAGGTATGTTCTGGGCCCTTTTTGGACTGGGTCTTTGTAATATATACAAATTTCAAAGACTGACCTTTAGTT  
TTTCAGGTTCAGAATTGATTTCTCAGAACCAATTAGATCAGGTGCTGTCACTGACACTCAGAACTCATGAACTTTAT  
GCAAGAGCAAGAACATGAATTAGGGAATTCAGTGAAGAATATATGACAGTACAGGATACCATATTTGGCCAGAT  
CAGTTCATTTCTGTCTGTTGTAGTTTCAGCCCTTGAGAAACAACTCTAATTAGAAGCTGCTTTGACATATATGGAGTCA  
GAAACTAGGAACTGTAGACTTTAAAGGGCTTTCTGCAATTGGGTTTTGAGATTCTTCTCTCTTTTATGGTAGTCTTAAAC  
ATTGCGCTGTTAAGTGTATGCTCCCCCTCCCAGGCATGCCAAGTATATACTGACCAAGTGTCTTCTTTATTTAGCTA  
CCATATGAGTGGTTCTCAAACCCATGCCCTTGTTAAACACAGATTACAGAGCCCTATGCCCCACAAATTTCTGATTGAG  
TACTTCTGGGGTGGGTCTGAGAATTTTCTTCTTATAAGTTCCTCAAGTGATGCTGATGCTGATGAAGTCTGGATGGG  
GAACCCCTTTGAGAAGCACTGGGTTCTCTATCATCTTCAGCTGACAGGCTTTTTCCCTTTGAAGGGTTACCGCTAT  
TGCTGTGCTCTGCTTTAATATGCTTAATAGCATATTGGTCATATCCAGATCTGAGGTGGAACTGGGTCCTTAGA  
ACAATTTTAAATGTTTATATTTTAAAGGTATTGATTTATAAAACTATTGATTACTTTATTTCTCAAGTCCAA  
GGTGCCATTGATTATAAAAAACATGTCTGGATTTTAGAGGCATTAATAATGTAGGGCCAGGCGCATGGCTCATGCCCTG  
TAACCCAGCACTTTGGGAGGCCGAGGCGTGCAGATCACCTGAGGTGGGAGTTTGAGACCAGCCTGACCAACATGGAG  
AAACCCCATCTCTACTAAAAATAAAAAATTAGCCAGGAGTAGTGGCACATGCCCTGTAATCCAGCTACTTGGGAGGCTG  
AGGCAGGAGAATCGCTTGAACCCAAGAGGCGGAGGTTGTGTAAGCCGAGATCATACCATTGCACTCCAGCCTGGGCAA  
CAAGAGCAAAAGTCTGTCTCAAAAAAAAAAAAAAAAAAAAAAGTAGGGAAAAAATTAAAGTTTCAGAGGTACTGCAA  
ATTGATAAATAAGGCTCAGTTTGGGGCAGTCTCCCCTGGATGTATGTTGTATGTGTGTAGCTCAACTCGATGGGCACAG  
TTAGAAGGAAGGATCCCTGGTATGTTTGTAAACAACATAGGTGAATTTAAGCCTCCCTTCCCCAATTTCTTAGTGG  
AAAAAGACACTACTGGTACTGTGTCTTATGGCTGACTTTGTGCTAATTGAAATCTTATTATTGTATGCACTCCTCTC  
CTACTTAAATGTGACCTGAAATGCCAGATCTTTCTTTTGAATGAATCTTTTTTGTCTTTATTGGAGCTGTAGGGCTAT  
GCCTTAAAAAAGTTGATTATTAGACTCACTGTTTCTTTGGCCAGTCAGGAAAAGATATTTAGGACAAGAG  
TTTCTCAATTGTCTCTCATCCAGTTTTGCCTTTATAGTGAATTTCAATAAATATTACCATGCCTATGTAAGAGGGTGACT  
GGAGAGGCAGAAATTTCTATCTGACTGTCCACTTCTAACTCTACTATTGGAAAACCTGCTAGGGGTTTTGTATTTATTA  
TTTTTGGAAAAATCATTAGTGGATTCCCTTAGCTATATAAAACATAAGGCCTGTCTATCTTTTTCTTTGGAGAAAGAGTG  
TGACAAAATTTCCCCCTCTTATTAAAGCTACCCCTCTTGGTACAGATTTGAGGATAGCCTGGACCAAACTACCTA  
AGAATTCAGGAGTCTACCAGGAGAAAAGAGACTTTCTCACTTTGTGCCAATTTAGAGTACTGAGGAAACCCATGAGA  
ATGGATGAAAAAGGGCAGTCCCATGGTGTATTGTGCGGAGAGAATGCTGATACGGCGGGCCCTAGAGGGGATTAATGTAT  
CTGTGTAGAGGAAGGGGAAACCTAAGCTGCCTGCTCAAGAAGAGCATCTTAGATTGTTGAGTGAGGGCTGATCTTTACT  
AAATGAGTTAAATCAAAGAGCCGAACCTTGGAGTCCAAGGCTGGGCATGGAGACCCAAACCAGCAAGGACACAGGTCT  
GGACAGGACCATTGTCTACTGTGATACCAATGGCAGTGGCAGAAGCCTTCATACCAATTGCCGTCTCTCTACACCTG  
AAGTTTAGAAGACGACTCTGCTTTAGACTGAATAACCTCGAGGTCTTGGGTTATTGTAAAGAGGGGTAGTTTTCAA  
AAAGAGAGATATTAGATTCTCTATTGAAAGGGCAGCCCTGGTCTCCAGTGATTAACCTGGAAAAACAAAGAGATATAAC  
AATTTTTACATCTAAGTACTGTGTAGCTTCTGTGTGATCTAGAATCAAAATGAGACAAGATGTAGTACAGCAGTTA  
GACTCTCAAGAAAATCATTCAAGTCTGTTTAGGAAAACCTGACATTCATTATTAGCAAACTATTGAGTAGCTCTCTGTG  
CATCAGAACCTGTATTACAGTCAACTGAAATAAACACAATTTCTACAGAGTGGAGTTTTCCAAATAGACTAAGATGT  
CATAATGGACTGTGTGTAGAGTAATGTTCAAGTTTTTTTGTGTTAAGCTTCCCATCCCCCAGAAAAACTGAGTATAT  
ATAGCAAAACCTTTTATGGATAATAATTGACATATACCTTGGAGGCCATTTGGAATCTCCATAAACGAAAGAAGAAAGG  
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TATAGACAGTGGCGCACCGCCAAAGATGTAGAAATGTGGCTTGTGTTGTTGTTTGGAGCAATCTACTCGGTACC  
CTGTGTTGTGAGTAGGGGTGAAAAGAGAGAATCAGTGGAACCATGGGAAGCAGTTTGGGAGATAGGTTGAAAAAATAT  
GGAATGTTCTAAGCATGACATTGTGAAAGAATGCTAGAATCTTTTTCATATGAGGGGTGTTATGAAAAATAAGAAAGT  
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CTGAAGGAAGCATATGCATTATAGAAGTTCTCATCCTGGACTGTGGTTTTGTTGAGAAATGACAGTGGGTGGAGTCTGAGG  
AAGTAAGTGTGGCCATAATCGAAGAAGAGATAAGAGGTAAGAGCAATGGCTTAAAGCAAAAAAGCCTCAAAACATTC  
AAACTTCTTTGTATATAATAGATGTTTATTTGAGAATGTCAAGTTTACGGAGATACCAATAATCATGTGTTTGTCTGTA  
TTTAAAAAGCCACCACCATAAAGATCTAGAGTCACTCATGTAAGTCAAGTACCAATTTTTTCCCATGAGTGTGGAACA  
TTCTGCTCTTTTACAAACAGTAACTCGTACTGTACATTTTGCAGCATCTCTCAATTTTGTGTTATTATTAGTGCCA  
TGTAACATGTACATGACTTGTGGTGAATATGGTGATTCTCACTTTATAACCAAGAGGGTGGATGTACAGCATATGA

Fig. 6.325

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CGAGTTATGACTGTAAGCGCTGAAGTGTGAGTCAACAGGTCAGTACCCAGGTAGTAAGATGTGTTTATTGTTTCATGTTGG  
TTAGCTGAATTTCTCTGGGCTGACCTCACTGAAGTTTGTCTCGTAAAGAACCCGATCTTTACTGATAGATCAAGGATCT  
GAAATCTGCACCTAGTTCTTTGGCTAACCAAGTTGTGTCTTTGGGGGAAATTTCTTAATCTTTCTGCTCTCCATTTCCT  
TTTCTGTAAGTAAGGATTAGACCAATTCATCCAGGATTGAGAAATCTATGGTGTGACAAAGACTGCTGGTGCTGA  
CTGAATATCTTTACAGATTTGTTCAATTTAGTAACCAATATAATAAGATGACTGACTGAATCTTAATTATATTGGGTGA  
CATCTGCCTAGTACAAAGACTCACTTTTACTCTCTCCGTTTGTGTAGTAGTGATTTTGGTGCTGGTGCTGGCTGGAGCATC  
TCCTGCCTAGAGCACTCACTTTTACTCTCTCCGTTTGTGTAGTAGTGATTTTGGTGCTGGTGCTGGCTGGAGCATC  
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GAACCTAGGTCCTCTGATAAACATGGTGTCAACATTGCAACCTTGACTGTTTCTAGATATTTTCTTTACTTTTCTTTT  
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CTTACTGCAGCCTTAGCCTCTGCACTCAAGCAATCTCCCACTTCAGCCTCAGGATAGCTGGAACCCAGGCTGCATG  
CCACCATACCCAGCAATTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTT  
CTCATGTACTCAAGTGATCTCTTGTCTTGGCTTCCCAAAGTGCTGGGATTAAAGGCATGAGCCAAACATGCCAGGCTA  
CATTTTCTTAATATGAGATAAAAATAAACCTCTTCTTATTGAAGCCATTACTAGATGCCTAATTCATTTCTTAACATAA  
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ACTAGCTTGGGAACCTTCTTAGTGCTATTAGAGTTTCAACACAAATTTACCAATTTCTAAATTTATTAGTTATTGGATA  
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GAGAAAGTTTATTAATCCAGAAAACACAGAATTTAAAAAATATTGGAAGTTGGGAATTTGGGAGTTAAAGGTACATTT  
GATCTTTGGTTAATGGCAAGTTACATTTTATAATAGGATGTAAACCTTATTCTCACTGCACCTGTACTTTGATCTTT  
TTGTCTGTGATTCGAATGTGATTATGAGGATTACTGGGTCACTCTCAGCCTAAGATGTTTTTGTGACTTAATTTTCTA  
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CCATCTGGAAGATTTTATCAGTAACATTTATCAGTGTATTTGGCTTTTAAAGCAGCTCTTCTCTCTTTGAAA  
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TTTTAATTGGCAAGTTATGGTGTCTTCAATGATTATGCCTTGGTGTGATTGCTTGGATGTGTGTTTAGAGATGGAG  
GGTAGAAGGGATGAGATTTTTGTGAAATACAGTGAGCAGGGGCTTAGAAAACCTACTGCAGTTCTCTGTGTGACTAAGC  
CCAGCACTAGTCTGAACTTCGTATTGTACTTCTCTGGAATGCAATACTATCGTCAGGAAGACAAACGTTGCTGTGGC  
TTAAATAAAATAAACTGCATGATGTATTACAGTCAAAAATAATACCCAAACAGTCTTGTAAGTTGTGTTTTTGG  
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TCACAATCCTTGTCAATTTGCCAATTCATATAAACTTTTCAGAAAGTGAAGTGTCTTTAAGAAATTTATTTTGAAGTT  
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CCATGAGGTTTAGGTAGACCATAGATACTGTTTCAATTAGAACCTTCATGAGGATTTAGTTTCTCTGTCTATGGGTCC  
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CTCCATTTTGGCTTCATTCTCTGCTCTATCCACATGAGACGACCAATGTCTGAATCTAGTGCCATACCTTTCCAGG  
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CCAATCAGTCAATCACAGTGGTCCCATCTGACCATGGGGATGTTCCCAAGGAAATCAGGGTGTATTTTCAAAGG  
AAGAAGAAATAAATGCTGGACCTTCATAACAACCAATTGCCCACTAAAAGTGCAGTCAATTTCTTGATGAAATAGAAC  
CTTCTCTTGTATCTAGGCTCCATGACACATTGATCATGGTTAGCTAGAAGATTCTGAAGTCTTATTATCCACTTTGCC  
AGTTACATTTATTGTAGTCTAGAGGGGACTGTTAAGGGAAGGGGAGCAGTGCTAAAAACAAATCCCATTTCCAATATTA  
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GCTATTTCTCTGTAGGTGCCCTTACCCTAACTCCCAAGATTCCTCCATCTCTTCCCAAGCTCCTCTTTTCA  
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GCCTATTTAGCAGCTTAGCCTGAATTTCTGTTTTAGTTTTCTGTTTCTGGAACCTCTTCTATTTTAAAGAAAGAATGATTC  
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TCACTCATTTCTTAGTTATGTTTCTGATGACTTGAAAAATGAGTGGCAGTATACAAAGTCTGAGCAAACTGACTTCAG  
AATGAGTATTTGGCTTTGATTTCTCATGGCATCTTGCCCATTTGAGCCATCTTTTTCAGAGGCTCTCAGCTGTATGAAAAA  
TAGTACTTTTTTTTTTCCAGAAACATGAAGTCTGGCAATCTTTATAACTTTTGTTCAGCTTGTGATTTCCCGGATTCAAT  
GGTGTAGTGAAGAAAGTCTCAGGAGCTCCAGAGTCTCAGAAGATGACAAGAAGACCCTAATTTCTGCTGTCTC  
TATATTTAGTATCCAAGTTGGGGATAAAAGCTAGTTTTTAAGATTTTCTGTTTCAGAAATCTTTTCTATATCACTTACG  
AGGCAGCCCTTTGTTTAAACCTTTTTTGTCTCAGGCATGGATTAACTGCAATTGGATTCTATGTTAAAAATGATTTTT

Fig. 6.32

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TTTGAACATTTTGTAGGCATCACTCCAGTATTTTCTATTGGTGAAATCCTGATCTTTTTCTGTGTAGAAATTTTGTGA  
CCTTCTTTTCTTTACTGAAGTTCCACATTTTCATGATCAATTGTCTTGGTCTGCATTTTTATCCATTGCCCTGGGCACG  
CAATAGACCTTTTCACTCCAGAGATATGAGTCCTTCAGTTCTGAAATGTTTGTCTTTATTCATGATAATTTTATGCC  
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TTGTTTCTTCTCTTTTGTCTTTTGTCTTTTGGTCTTCTAGAAGATTGTTTACACACATTTTATTTTCCAACCTT  
ACTATTAAATGTTTATTTTGGTCATGATTTAAATAAATTTAGCACTCTCATTCTCTCCTTTTTTTTTTTTTTTTT  
TTTTTTTTTTGAGACGGAGTCTTGCTCTGTCAACAGGCTGGAGTGCAGTGGCATAATCTTGGCTCACTGCAACCTCTGC  
CTCCAGGTTCAAGCAATTCTCCTGCCCTCAGCCTCCCGAGTAAGTGGGACTACAGGAGCATGCCACCACACCCAGCTAA  
TTTTGTATTTTGTAGTAGAGATGGGTTTACCATTGTTGGCCAGGGTATCTCGATCTCTTGACCTCATGATCCGCCCA  
CCTCAGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCAACATGCCAGCCTCATCCTCTCCTTTTTAATGGTATATG  
TTCTTATGTCAGAAGTGTGTTTATCTAAGGTCACAGATTATTATCCTCTTGAGGTTTTCTCTGTCTCTCTCTTCTCT  
GTAGATTTCTTTCTTCACTGTGTTTGTCTTCTTAGTTTCTCTCTTCTTCTTATTATGGAGAGTTTCTTAAGAGGCTGTT  
CATTCTTGAATTAAGCAAGACATATACAGGTGCATATGCACACACACAAAACAAAGCAACAATGACAATGATGGCA  
AGAAACAATGTCAGAAGTCTGTGATCATGGATAGGCTCGTCAACTGTAGGGTTGCATGTGTGCATCATAGGTTGTTT  
AATCAAAGCCGGTGTGTTTCTTGAATGTTTCCCCAAGGTCATGATTAGGGGGTACCCCACTTTCTGCCTGCGAGATT  
GCGCCTGGGGCATATAACTGACTGCTAATGTCTGGGAGCATGACAAATAAAAAAGTTGGGTTTCTTATTGCAAACTCT  
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AAGGCATTTCACTATTTTCTGATTTCAAAAAATCAGTAGAAATCTCTCCTTTGTCTGATCTTGTCTTTATTATTG  
TGCCTTTGTGGGTGGGTGTGTTGTGTTTTTATCTTTTACTTTCACTTCACTGAGTATCAGTAAAGAGAAAGAGAT  
AAGCAGGCATGATTTACCCCTCTCTTACTGGAAATCCAGGGGAACGATAGCTGAGGAGGAAAGTAGCTTGAAGAGCAC  
CTTAGAGTAGAAAAAGACGGGAGAAGGTGAGTTTACAAAAGTACAGCAAGATGATGATGATAAATAAACTCAATG  
CGTGCTCACTATGATTTGCACTGTGCAAGTCTTTACATGGATTATTTATTTGTGTTTTTGTAAAGACACCTCAGGA  
AGTAGCTATTGAGACACAGAGAAGTAATGACTTGTGTTAGGTTAGTAAATGGTAGAGGTGGTATTCAAATTCAGATCT  
GATTTCCAGAGACCTCTCTCAACTGCCACACTATCTTGCCCTCTACAAATGCTTAAGCAGGGATTTAAATGAACCC  
GTACTTTTACAAAAATCATTTTTCATGTCCATTATTTAGGAGTCTCTCTACTCTATCAAAAGTATTAATTGACCTATTT  
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ATAATTCATCTTTTAGGCTTTGTAAATTTATCATTTTATAAATTTTAAATTTGTGAAATATAACAAAATTTAAGAAAGT  
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AATTTCTGTTTTCATCCTCTCCAGATAGGTCACCACTATCTTGACTTTTACTTTTCTTCTTCTTCTTATGATT  
TACCAGTATGATGATGCAACCAACAGTTCAATTTAGTTTGTGTTTTGTCATTTTATGTAATGGACTCATCTTGTAG  
ATACCTCTGTGTTTTGCTCTTTTGTGCAATATTATAGTTGTAAATTCATCAATGTTGTATGTAGCTGAGGATTGCAC  
ATCATAATATATATCATGATATATAGCATTCTRTTGTATTAAGGAACCAATTTACTGTCCAACTCTTCTTCTTATG  
CAGTTGAACATATCCAGTTTGGAAATATTATGAATAAAGATATTTTCAACACTTATGTGCGTGTATCTTGATGCACATA  
AGCGTACATTTTTGTGGGGGAATATACCTAGGAGTGGATTATGGGTCATGCATATCTTTAACTTCAGCAGATAAGCAG  
AAAGCATTTGACAAAGTGGTTGAGAAGGTAATGAGAATTCCTGTTGCTCCACGTTCTAATAAAAAACACTTGGATTTTC  
TTTCTTTTTTTTCAAATGACAGGGCTCTATAATGGGATCATTTGCATTTCTCTGATTACTAATGAGAGTGAGTACTCCTT  
CATATGTTTGTAGATATTTGAATTTGATTTTGTGTTGTTGTGATCTCTTCATGAAAAGTACTTTCTTAAACAGC  
ATTTCTGAGCACCTTTAGGGAGCCAAAGGCCAAATAGTTAGAGTATTTGTCAACATGGCAATAAGAGAGGCGAAT  
TCATCCATTAATGCTTGGCATATGCTTATCACTGGAATATATTTTGCAGCATCTCCTGACATCACTATTTATCCCTTT  
TACCAAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAG  
TCCCGTCTGAGACTCTGTAGAATATATATAGAATGCAAAATATCTTTGGATTCCGCTCTGTTGTTGTTGTTGTTGCTGTTT  
CCTACCCTACAACCTTTTGGCATCTCTACCCAACATTTTATAATACAGGACTGTCTCTGAGGTTTGTGTTTCTTATGGT  
TGTTCTCATGTATAAAGAGATGATGATAGCGTTTCTCATGCCAGTATGTCTGTGTATGATTTATGTTGTAAACAGTGC  
AAAGAGCTTTACAGCCATTGTCTCACTAATCTTCAGAGCATCTTTTGCAAATAGAGAGGAGACAAGTGAATCAACATCC  
TCTATATCAGGGAGGAAACATATCTCCCTGTGGAGAGATGCTTCCACTGCTTTATCGACAAGGCACAAAGCTGCGAACAG  
AATTCAGGTTGTATTCTGACTCCTACACTAATGCCTATGGACTAGACATGGTGTAAATTTTATATGCGTGAACATGA  
GGTGTATTCACTCACTGATCACTATTAGCMACTGGCTAGAACATGAAGTGTGTTGTTGTTTTTCAAAAGAAAGATGA  
TGAACTTTTATATGCTTTTACACAGTCTGATATTTTAACAATTTGACTAATTTTTATAGTTTATTCTTCCAGAAAT  
TCCTTTAACTGTGCTTATCCCGTAAGTAATTGCTAATGTTCTTAACTAATCGAGAAAATCATTTCTATTAGTCCCTAA  
ATACCCAGACTTCATACCTTCTGCTTCCCACTCTCCTCATATCTAATCTCTCCCTTAGGTTTAGCAACAAATGTGCA

Fig. 6.325

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GCTTGACRTGGTCAGTGGGTGTCTGAACATTTAGTGCTAGTGTTCCTCTCATCTCTCTGCTTTTATTTGGACTTCTCA  
ACTCTTAAAGTAATTTTAAACATATTATAAGAAATCTTTGAATTTATAACACTTTACAGTTT TGAAGACTATATAAA  
GGTTCCTTCTCACAGGCTGTAAAGGGTACAAGGACAATGAACTCAGATGACATCCTTAAATGCACCTCTACTATTATAT  
GGCTAATTTAAGATTAAAAATCTGGTTTTCATAATTATTAGTCTAGTGGTCCCTTTTATAGGCAGCATAATACAGTTGTAA  
GGAGTACAGACTGCCTGTGTTTTGAATCACTGGTCCATGCTAAGTCTAGCTGGCTTACCCTTGGGCAAGTTACTTGAGGTTT  
TCTGTGCCTCAGTTTCCCCAGCTATCAAATAGATCTAAGAGTTGTGAAAATTCAATGAGTTGATACATATAAAAAATACT  
TAAAGCAGTGCCTGTCCACATAAATGCTTAAATAATGTTAGCCCTATTATCTTTCCCTCATTATTTAGTGTTAAAGAGC  
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AAAATTGATACCAATTAGTTTCCTTATCTTGAATGAAATCAGTATTGTAGTACAGAGCCAAGCTACTGACCTGGATTAC  
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GGTCACAGTGTCTGTTGTTTCCCTCTATGTGTCCATGAGTTGTCATCATTAGCTCCCACTTACAAGTGAGAACATGCA  
GTTCCTGTGTTAGTTTGCTAAGGATATTGGCCTCCAGCTCCATCAGTGTTCCTGGAAAGGACACTATCTCATTCTTTTT  
TATGGCTTCATAGTTATTCATGGTGTATTGTATGACACATTTGCTTTATCCTGTCTACTACTGTTGGGCATTAGGTGGA  
TTCTATGTCTTTGCTATTGTTAATGCTGCTGTAATGAACATACACATGCATGTGTCTTTATAATAGATTATTTATAT  
CCTTTGGGCATATACCCAGAAATGAGATTGCTGGGTGAATGCTAGTTCGTGTTTTAGGTCTTTGAGGAATTGCCACAC  
TGTCTTCCACAATGGTTGAACATAATTTACACTCCCATCAACAGTGTATAAGTGTCTCTGAGTACCTGTTATTCCTTT  
GAAGAAAATACCTACACAACCTAGATAATTAGAGAAGGAGAGAAAGAGAAAGAGAGAGAAGGATGCCACAATAATAAAGT  
GTTTTTGGAGGCAAGGATGATGTTTTATGAATTTTGTATTCCAGAAAATACAGATAAGTGGTTATTAGTGAATGA  
AGAAATGAATGAGTTAACTAATTGTAGCAGAAAAGGGAAGATAAATAAATAAAGGTATCCATCTATTTAAACAAAC  
ATGTATTGCTAGCCTAGGAATTGTACTTGGCTTGAAGACTTTAAAGTAGATTAAAGACAGTCCAGACTTCAAGGACCAG  
CAACTGAGGGTGTAAACAGAAAGGACAATGACATTACAACAAGCTGTGGGTTCACACATACCATTTCAAGACTAGAGA  
AGAGAAGAAAATCAGAGATICTTCCAGAAATGAAAATCTTGAGCTGGGGCTTTGAGGATGAGGAGAAGTTAGTTAGTT  
AGAAAGGAAAGATGAGTAAGGTTGGGGTCAATAGTTCGAGCAATATTGCAGTATGAAAGGTGTGAGAGAGCCTCAAA  
CAGGTTACAGATTGTGGCACTATAGGTGATGGGGAAGGAGTGAGAGAGGTAACCTACAGAGAAGTAACCTATTAGGAACT  
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ACGCACCACTGTGCCTGGCTAATTTTTTAAAAATTTTGTAGAGACAAGGTCTCCCTATGTTTTCTGGCTGGTCTCGAA  
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ATGGAACCTGTATACCTCTCAGGGATTGTGGAATGTCTTGGAGTCTATGACCCCTCAAAATTTGAGAAATGTTGATG  
TGGAGGTAGAATTGGAGTAGGCAGGGGAAAGACAGGTACCAGGAAAACAGTTCCAGAGCCTACTACAATAATCATATGA  
GAAACAAAGAGGGCTTGAACATAAGGGAGTTCAAGTGAAGAAAGAAATCTAATAGTTATTATAGAGTAAAAATAGACAGAA  
CTTGGTGACTTCCAGGATTTTAGGCTTGAGAGAGGGAGGACTCAAGAATTGTACATGGGTTTCTGGTTTCAAGTATTAG  
ATTTCTGGCATCTGCTGTCCATAAGATAGTAAAACTGCAGATAGGGTAAATGCCAGTATTGGAATATGAAGTTTGAG  
GTGCTGTGTCACATCCAGATAGAAATTTATGGAATGTGGAAGAGCAATGTAAGCTGGGGTTTTAGCACAATGGTAGGT  
AGGTATTGTAGTTTTGGGGGTGAAGGTACTCACACAGGCAATGAGTAGACTAAAAAASAAAAATATAGAGAAAGAAGA  
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Fig. 6.326

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Fig. 6.327

[illegible]

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[illegible]

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Fig. 6.332

[illegible]

Fig. 6.333

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TTGAGGGTTGATGGTGATGATGGAAAAATAGTAACCTGTTTTAGGATTGAGAATCTGTGGAAAAGGAAGGAACTCTCAA  
ATATTAACCTACCTTATTTAAAATTAACCTATTTAAACAACCTGCAAAAGTGGTTCAGTATACCTACTATTGATTGAATA  
CCTTCTATATGTCAGATACAGCCCTTGGTACTTTACATTTCTTATGCATTTCTCAATAAACCTGTAACTCTCAATGT  
ATACAATGTGCTCAGGTCTTTTTAAATGGCTTATTTAGATAATAACAAGTGAACAAATGGCAAGGCTGGAATTCAGGTT  
TGAGTGACTCAAAGTCCATGCTCTTTCTGATCTATCACACTATTTCCCATGAAGAGCTCTTATAGGTTGTGGATTCTT  
CTGTGTGTATAATAACTTTCTTAGCCAAATCTAAATCTCCATAGATATTCTGTAAAATTATAAACTAATTTATCTTA  
TTCGTGTATGGAGCCAGTTATATACAACCTGGATAAGCCAAATATAACCGATATACTCTTGAGTTCTGAAATTTGTTCT  
CTATAATGACACAGCATTAACAAATGTAGGTTTACAGTAGGCCAAAATAGTTTTATCACTCATATGTGTTGCTTGTAA  
TGCAAGTAATGAGATTAAAAATTTGATACATAAGAAATTACCTTTCTGAGACTCTGTTTCATAGCCTGTTTAAAGGGCCTA  
GTCTTTTCRGGAAATCTTTTGTGTGTTTTTTCTTTTCTTTTCTTTTTTGGGACAGAGTTTCGCTCTTTATGCCCCA  
GGCTGGAGTGCAGTGGCACAACTCTCGGCTCACTGTAACCTCCGCTCCCGGTTCAAGTGATTCTCCTGCCCTCAGCCTC  
CCAAGTAGCTGGGATTACAGGCACCCGCCACCATGCGTGGCTAATGTTTTGTATTTTCTTTAGTAGAGATGGGGTTCAT  
CATGTTGGCCAGGCTGGTCTCAAACCTTGACCTCAGGTGATCCACCTGCCTTGGGTTCCCAAAAGGCTGGGATTACAG  
ACATGAGCCACCATTGCCCGGCTGTGTGTTTTTCTTAATCCCAGTCTTCAAAGTGAACAAATGCTCTTTGGCATTACTT  
CTTAACCTTTAGGTATCTCATAGTGAGAGAGATATAAATGCTCAAAACAGAGATTATGAGAAAGTTAAAAAAGAGAA  
GAAGAAAGCAGAGATACGATTCCGAATAAAGATTCTGGGGCAGTGTGATTAATAAATTGCTTTCTTTTCTTCACT  
CAGGAAAGTATTCTTAACTTGGAGTCTTGGTGACTTCAGGGAAGTCACTGGAACACTTTTAGAGTGAATAATTTGATA  
ATATGAACCTTATGCTCATTTTTCTGGGGGTGTGTCATCAGATGCACCTTTGTGCACTTCACTGTTTCTCCCAACATC  
ATACTGGTGTATGGTGAATCTTTTAAATTTTACTCTATTTTGTAAAGGATCATTACATATGAATGATATACCATAAT  
ACTTGTCATTTTTATTTTAAATGTTAATATTTCACTTCAGTAAGACACCATGATCTGCTTGACCATTACCAAATTTGGC  
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ATAGAAAGGCCTAGACACAAATATAAAATGACATTAGAAAAGTACATACAGGCAGGACCAAAATTTTCCAGGTG  
GAAAGATTGGCTAAGATGGGCAGTCTTGGATGGGATAGTCTTAGATGTAAATAAAAGGAAAGGATTGAAATGAGCC  
GAAAAAGGCTATGTGAACAGAGTGTGACATTAATACAATAAGTAGGAGAGAGTTGTGCAGCAGGTTCTTAAAGAAAT  
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CCCTGAAGAACAGTTGAGCTAAACTCACAGAATTCCAGGATCATGGTATTGGATGGGATCCTTGACAAGTAACCTGGTCA  
GTTTAGGAATTCCTCTACAAACATAGCTGACCCCATCCAGGCTAACTATAATGAACAACCTTAAAGCAACCTTAA  
CCAGATAGTACAATTTAGAAATCAGATAATAAATGAATGTTAGAGCTGGGTAGGTGCTAAAGATAATCTGTTCAAACCT  
CCTTGTTTTCTCTAAGGAATACTGTATGACGTAATTGACAAAGGTGAAGAACAAAGACTGTTATATCCTAAGATTGAT  
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CTGAGATCAGGGTGTGACATAGTCAGGTTCTGGTGAAGGCATCTTCAGGGTTGCAGACTGCCACATAGCATGTATCC  
ACATGGTAGAAAGAGAGCAACCTCTGGCCTCTTCTTATAATGGCACGAATCTAATTCATGAGGGCTCCATTTCTCATGAC  
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CAAACTACTCAGTCCATACAAATATTTCTTTGACATTTCTTTTCTTTGCTCCTGAGAGTTTTCTCCTAATCTTT  
CTGCAGCTTCTCTTCCCTTCAAGGACTGCTTAGGATTTCTCTTCTTCTGCTGCAATTTGATGTTGCTTGTGCTTAC  
TTTTCTGATCTGCCTTTATACTATTCCAGAGTAATCTTTTGAAGCAAACTGATGACCATCTTAACTCTTAACTGCTT  
AGATTTTAAATGGCCTCTTGAAGAAAAATATTGTCTTGAATAGTATACAAGTCTCCCAAGCATAGTTCTTCACTCTT  
ATCTTTGTCACCTGTCTGATCTAACTTTATATCCCTACCTGTTTGTAGCTTCTGTAATGGCCTGTGTTCTCTAAGTGA

Fig. 6.334

ACTTCTTCAGAAATGAATCCCTGTTTCATTCCCTTGAATATCTTTTTTCTTTCTTCTAACAACCTACCAAAACAGTTTCCAGGTAWC  
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AATAAGGCCCTAGAAAGATTAGTAGCTGAATTGCCTGGAATTGCTTGTATGAAGTGAATAGAGATTGGAATCTTTCTC  
CACTCTTCCAGTTTCTTTCAAAGAAATAATCACTCACAGTTGCACACATGTCCACATGAAGCCCCAACCTAGATGCCT  
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CTCTTCTCTTATGTGAGCTCAGAGACATTTCTGCTTGGGCCAATCTGGCCTTCAAGCTCAGTCCCTTCAATGAATA  
AACAAAACAAAACAAGTCGGGATTTTGTACCTTCAGTAACCTTATTGACGATTGGGAGAAAGGGAAAATGCACGGGTTG  
GAGTTACCCTTTAGACCAAGCTGACTCCTTTCTCTTATATGCACACACACACACACACACACATCTTCAATAAC  
TTATTGATGATTGGGAGAAAGGAAAAATGTACAAATTGGAGTTACCCTTTAGACCAAGCTGACTCCTTTCTCTTACACA  
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AGACCAAGCTGACTCCTTTCTCTTACACACACACACATGCATGTGCACAAACACACATTCTCTCGCTCTCTCATGCGCT  
TACACATGCAACACACATATTTCTCTCTCTCTAGCACTTGGCATATTTCTCCCCTTTCTCTGTGTAGATGAGGCACAG  
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AGACTCTCGTGAAAGAAATTTCTGGTGAATTCCATTGTTTTTTTTTCTCCACTTTATTAAGTATGATTAAATGAGTGA  
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CATATTGTGGGAACATATGTCTGCGTAGGATTTTAATACAGAGATTGTCTTAGATAAGAATAATCGTCAGAGAAGCAAA  
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GCCACCAAGCCCCGACTAATTTGTATTTTGTAGTAGAGACAGGGTTTCTCCATGTGGATCAGGCTGGTCTTGAATCCCG  
ACCTCAGGTGATCCACCACCTCGGCCCTCCCAAAGTGTGGGATTACAGGCGTGAGCCACCACGCCTGGCCGACACAGA  
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GAGGACTCAGCCTTTTCCCACCTCACCTCTGCTCCCTGTCTGATTTAAATAGTCTCTTTTACTGTCCCATAGCCCAT  
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TGGTTAGGGAGATTTAAGTATTTGCTCTTAGGAGCTTTTTGTTGTAGTTCTTTTATTTTAAAAAATCTGGATGCTG  
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AGGAATTATGACAAGCCGATACAGTCTTTTAGCAGACCTTCAAGTGTGGCAAAGAACTAATGTCCACATAGTTACAC  
ATCCCGTACAGTGGATCCTTTTACCTCAATGGTCAACATCACTGTGAGTTGTGGGTAAGAGTAATGGACTGAACATTT  
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CAGAAGCCAAGTGTGCGCCGCAAGAATTGAGGACTGTTTGTTCACAGAAGCCCTCAGCAGAAATGCGGGTGTACATA  
GTTCAAAGGTGCTTGAAGAAAACCTGATGCTGTTGTAGCAGGGGCCCTTCAAGGCTCAATTTATTTCTCAGTTGCTGTT  
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SDOCID: &lt;WO\_\_02074992A2\_1\_&gt;



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AGCAAGATTTGGTGCAGTTAAAGAGTTTTTCATGTATTTTTAAGGAGAGCCACAGTGTATACTACTCTGGCAGGGGTTGA  
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CTAGCTGTCCGACATTTAGGTGTGTTGCTTGGTGTGGTGAAGTCAATTTCTGTGGGATAGTTGGCAACTCCACTTTGAGG  
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CAAATGATCTCTGAAAATCGTGGCTAGCTATATTGCTACTCACCTAGGAATTTGGAAAAAGCAATATTCTCAGCTCT  
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GCCAAAATTTCTGAAATATTTTCCACATTAAAAATAACAACGTAAATATAATGTGTGGAGCCACATCCTGTTAGAT  
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GCTTCATTGTAAACCAATGATTGAAAAGATGGCACTGAACAAATCCAGACACAATGGTTATGCATCTTTAATCCACTGG  
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TGCAATATGGAAGTTATTAGTAAATGAAAATGATTGTGTTAGAGCCATAGGCGAAAGTATTGTTTGTGATCTTTAGGG  
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CTCCTCACTATGAATGGTTTGTCTTATGTCATGCTAATGTAGAAAAGTTCTCCACAACCTGATCTGCTTAGGGACAGTGT  
CCCTGGTCCCTGGGTGAGCTTTGTAAACAGAACAGGCTTTTCTGTATGCCTTTGAATATGGTCTTTCCGTTTTCTCA  
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GGTGGCGGGGCCCCGGGGCAGAGCTCGAGGGGAAGGACGCGCGGGTGGCACGGACAGGGACAGGCTTTTGAATTCG  
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CGGACCCGTGAAGCGCTTGAGAACTGAGTCCCCCTTTCCCTGTCTCTTCGAGAGGAGGCTACCAGAACTGGCCAGC  
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CCAACAAGGTAAGCCCCGTTCTGCTGTCACTGGTGCCCCCAGGCTGCTGATTTCCATGCCGCGAGCCACTGGTACCC  
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TCAAACCTCAGAAGAGTTTCGAACCTTGAACCTTACCCTAATTCATCTAGTTGTGAGGGTACCCCGCAAGAAGTGA  
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AAATAGCACGGAAGGCAAGGTATAGTGTTCAGTTTGTGTATTTTTAGTGGCTATTGCGCTGTGCATGTGATGCGAGGATT  
TGCAAGGAGATAATTGGAATTGTGTATGTTTTAGTGGCTATTGCGCTGTGCATGTGATGCGATGGCTGAAGGATT  
CAGCCAGTAAGGACTGGTAATGTTGTGAGACAATTAGTAATAGTTGCTCGTCAAGATATTTAAGTATTTTTGGCCACC  
TATTTACAAGGTCAAGAAGGTTATATTATCTTACAGTTCATCTATGTGCACATATCTTTAATGAGTGTGCTTTTTTT

Fig. 6.336



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TTTTCTACCTTTCTATGGTTTTATCCACCTGTTCTCATGCAGTTTTTACAAAAAGGCCACGGCATAACAGCCACTTG  
ATTGTCTTATCTATTAACAGTGCTTTTGTAGGTAGCATTGTCAAGTGAAAAGTTGGCTTCAAATAAATAAAGGGGCTC  
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GTCAATTTGTGCCTCATTTCTAAATTTGGCAGAGCTCCTCATCAGAATGACCAATTATTGCTCTCTTACTGGGACTTTTA  
CCCCCTGCTGTRGCATTAGGCACCTTTATTCTCATCTGAGTAACAAATCTTAGTTTTTATAAAATATAGTTTGTTTTCA  
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GGCTGAGTTTCTTAATTCTATTGTGTGGTTGATTCTGTGTAAGAAAATGAAGAGCAGAATCAAAAGCCACTTAGCAATG  
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GTATTAGGAAGGAGGAACTGATTTCTCAAACCTTTAAACAACTGGGTTAACACATTATTTCTGTTTCTTAGACTTC  
TCAATAAAAGGCATCTTAGCCAATTAGCAGCTTTAAATGATGCTCTAGGAGCAACTAGCTGTATTTCTGTATTGGTA  
TTATATATGTTTCTTGCTTGTGTGATGGCATTGAAGCAGGAAAATTAATTGAATTTCTGGCCAAGGCTAGGGTTGGCTGTA  
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TACCCTTATAAGCACATTAATCTGCCTGAGATTTGTACAGATTTCTTTTGAACCTCATTTGCTACAAATGAGGGTAATT  
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TTTTGGCAAACCTCTCTAGCATGTTTTCTGTTGCCTATAAATTAATTTGCTTTGCTGGGTGCTTTGTCTCAGAGCTTTCT  
CTGGCTGCTCCCTTACTGCTTTGTAATAGTCAATGCAGAACATATAGTAGGACTTTTTGTTGATGTATTTCTTCTG  
GCAAGAGGGGTGTTATAACAAATATAGGATCTTTCATAGAAGTGGCTAAATCTTAAGATATTTCCACATTATGCAACTAC  
AGTGTAACTCAACAGATATAAATGTTAACTTTTGCTAAGAAGGAACTAAGTTAATTGGAAGGCATGTTAGTTTATA  
TAGAGAGAAAACAGCCTCAGTTGTTTTCTACATTAACATATTAATCTTAGATTAAAAAAGTGTAAATATGCCTAAATA  
CAAACCTTTAAATTTCAAAGAAAATATCTTCTATAATTATAGAAAATCAACATTTAGATGTTTTGAGTTGATATCTGC  
TTTTTCATCTACTCAATAAAGGTAGATTGGGAAAGATTTATGTAGCTTACATGTAGTACCTTAAAGTTAATATGAAAG  
ATTGAGAATCCTATAATCACTGTTAGAAAAATACTTTCTTTGCTTTTAAAGTAATAATGGAAGAGGGAACAAATTTTAA  
AGGAAATTTTTCTTTTCACTGAAAAGTAGAGCCCTTGATGTTACCTTAGCATAAAACCTTAGGATTAACAAATCTTAAC  
TTGCTCTGTTGTCATCCGTTTCAGTTCTGTGCCAGTATTTAGTGAAAGTTAATTATTTCCCAACATTTAATTATCAAA  
AACTCCTAATTTTTTAATTATTCAATAAATTAATCATTACTAGATAAATTTCTTTTTTTTTCAGTTACATTTTGAATTAATA  
TTTGGGGTAGTAGTGGTAACCTCTGTCTGAGAGCATTATGAAGTGTCTACGTTTTTCGAAAAAAATTCGAAACATAAGG  
ATTGCCCATGATAAAAGAGTATTTTTCTAATGTTATGGGTAGATTAAACAACTGGTATTTTCTAGAGAGAAAGGA  
TGATAGATAATGCTTTTGTTCAGTTTAAAGAGATTTCTGCGATAGTTACATAGACTGTAGCTATCACTTAAGATATAAA  
TACATGATGGATGTGCAAGTGTGTTATGTCAATTTTTCAGTGGATTCAAAAATATGTAGGGTTTGGTTTTCTCTTT  
TTCAGCAGGAGGACCAACTCTTTTTCTAGAAGTGTAGATTGCTGGGGTTAATTTTGTGATAGCGTAGCTCTAGTAGGG  
GAGCAGTTTTTACATGCTATTTGTTGTAATAGTTTAAATGCACTGTTAGTCTGAGATCTTTAGATAATGTAGAGAGA  
TCAGTAGCACTTTATTTAATATTCACATTAGTTTTGAAAGGCATTTGAAGAAGACTTTTTTTTATCCCTGTAAACAGGG  
ATTGGGGGGTATGCCTTGATATTTGCTTAAACAACAACAATCTGCTGCGTCCATTAGGAAATTAGTTAAGTTTCAGTG  
ACCAACTACAATGACAATAGGTTTATTATCTTTTACTCTTAGAGAATAGTTTATCTTTTATAAGTATTATTATTATT

Fig. 6.332

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ATTTAGTATTTCAGAGCTTCTTGTGTTTTGTTTGTATGTTGATAAGGATGAATGATATTTACTCCCTGGCC  
TGGAGTAGGCACCACTGATACTTACAGCAGCTTTGTACAGTGAAGAAGACATAAATGTTTTT ATTAGGCAACTTGGT  
TTCAAATTCAGCTCTGTTGTTTCTTATCTAATATTTTGGGCAATAGGCCTTACCGCTCTGGAGCTCAGTTTTTTCATT  
TATAAGTGGCGATAATGAAAGGGGAAAAATAAAATGAAAAAGTTATTGAGACCATTAGCTATAATGTATGTAAGCTCCG  
TTTGGTGCATTAGCACACACTGGGTGCTCAATAAATGTCATGTGCTTGCTGTCTAGAATATACTAAAAAGAGAGATT  
AAGAAAACTCTGTGTCACATATTTCTTGAATGTAAAAACATAATATTTCTTAGAAGAAAAACATGACTTTTCTATTCT  
TTTAAGAATTTACAGTCCAAATTAATGTTGCTCAAACCTTTGTCAATTTTGTGAGACAGAGTCTCGCTCTGTGCGCCAGGCTG  
GAGTACAGTGTATACGATCTCAGCTCACTGCAACCTCCGCTCCCAAGTTCAAGCAATTTCTCTGCTCAGCCTCCCGAG  
TAGCTGGACTACAGGCGCATGCCACCATGCCAGCTAATTTTTGTATTTTGTAGTAGAGATGGGGTTTTCCCATGTTGGC  
CAGGATGGTCTCGATCTCTTGACCTCGTGATCTCCCTCCCTCGGCTCCACAGTGTGGGATTTTGTCAATTTCTGTGT  
ACATTCATATCTGCTATTATATGTTGAATGTTTTTAACCTAATGTATTTTTTATTAACTCTTAAATTTATTTTCAATT  
ATTCTTAATTGACAAATATTAATTGTATCTATTCTTGGGATATAATGTGATTTTTTAAATGTGTACATCATAGAAAGAT  
TTAGTAAAGCTAATTAACATATCTATATTACCTCACCATTATCTTTTTGTGATGAGAATGTCAAAAATCTTTTAG  
AAATTGTAAAAACATATAATACGTTATTAATTACTGGGGTCTCCCTCAGTGAATAGATCACTAAACTTATTCCTCCA  
ATCTAACTGAAATTTTGTACTGTTGATCGACATCTTCCATTTCTCTCCTCCTCTACAGCCTCTGGTAACCCA  
CCTTTCTACTCTCTGTTTCTGAGATCGACTTTTCTAGATTCCCATAAAGTGAGATCATTTATTAAAGACAATATTTGT  
CTTTCTGTGCTGACTTATCTCACTTAGCATAATGTCTGTAGTTCCATTCCATGATGTTGTGAATGACAGAATTTCTTT  
TCTTTTATAAGGCTGTGTAATCTTTCTTT  
CTGGAGTGCAGTGGTGTGATCTCGGCTCACTGCAAGCTCCGCTCCCAAGTTCAAGCAATTTCTCTGCTCAGCCTCCCT  
GAGTAGCTGGGACTACAGGCGCCGCTACACGCCCCACTAATTTTTGTATTTTAAAGTAGAGATGGGGTTTTTACTAT  
GTTAGCCAGGATGGTCTCGATCTCCTGACCTGTGATCKGCCGCTCGGCTCCCAAGTGTGGGATTACAGATCTG  
AGCCACTGCGCCCGGCTGTATAATCTA  
TCACATTTTCTTTATGCACACTTGATGAACACTTAGATTGCTTCCATATCTTGGCTGTTGTAAATAAGCTGAAATGAA  
TATGGGAGTGCAAAATCTTTTGTATGACCAATTTCACTTCTTTTCAATAATGGTGGTCTAATTTACATTTCCCAACC  
TATGGTAGTTCTATTTTGTAGATTTTTGAGGAACCTTCACTACTATTTTCAATAATGGTGGTCTAATTTACATTTCCCAACC  
AACAGTGTAGAAGGGCTCCCTTTTCTCCACATCTTGGCAACACTGTTTATCATTCACTGTTTGAACATAGCCATTGT  
ACATGGTGGAGAGCAACACATACTGGGTCTGTTGGCGGGTGGGATGGGTGCAGGAGAGCATCAGGAAGAATGGCTAG  
TGGATGCTGGGCTTAGTGCCTAGGTGATGGGATGATACGTGAAGCAACATGGCACATGTTTACCTATGTAACAAACCT  
GCACATCCTGCACATCTGACATGTACCCCTGAACCTTAAAGTTGAAGAGAAAAAAGGAAAAATAGTCAATCTAACA  
GGCATGAGGTGATAGCTCATTGTGGTTTTAATTGCATTTCCCTGAGAATTAGAGATATTGTTGAGTTTTCTGTTGTTTT  
TGAGACAGGCTCTGCTCTTTTGTTCAGGCTGGAGTGCAGTGGCGTGATCATGTCTCACTGTAACCTCAAATTTCTCGGG  
CTCAATGATCCTGCTCAGCCTCCCAAGTAGCCAGGATACAGGTGTGTCACCATACTGGCTTTTTATTTTTTTCGT  
ATAGAGAGGGTCTTGCTATTTTGCCAGGCTTGCTAGAAATCCTGGCTCAAGTGATCTCTGCTCAGCCTCCCAAA  
GCACTGGGATTMCRGGCATGAGCCACTGTGAGGGCTGGGGAACATTGTTTTTTTTTTTTTTTTTTTTTTTTTTTGTATCT  
CTGTTGGCAATCATATTTCTTTTTTGGAGAAAGTGTGCTATTACAGATCCTTTGTCTAATTTTAAATCGATTGTGTTTC  
TTACTATTTGGTTGTTTGAATTTTTTATATATTTTGAATATTAGCCTCTTATCAGATGTATGGTTTGCAGATATTTTCT  
CCTGATCCATGGGTGTCTTTTCACTCTATTATTGGTTGCTTGTGAGGTACTTTTTAGTTTAAATGTAGTCTTATTTG  
TCTATTTTGTGTTTGTGCTGCTTTTGGAGTCTTATCCAAGAAATCATTGCCAGACCATTGTTGTGGAGATTTT  
CCCTTATATTTTCTTCTAGTAGCTTTACAGTTTCAAGTCTTATGTTTAAAGCCTTTATATCTCTTTTGTAGTTGATTTTTA  
TATGGAGTGTGAGATAAGAGTACAGTTTCTTTCTGTCAGGTGGACATCCAGTTTCCCAACACTATTGAAAGAGACT  
GTCCTCTCTCATTGTGTGTTCTTGGACCTTTGTCAAAAATCAATTGACTGTAAATACTTGGATTTACTTCTGGGCTT  
TCTATCCTGTTCCATTGGTTGATGTTTGTGTTTTATGTCAATAACATGCTGTTTTGATTACAGTAGCTTTATAATATATT  
TTGAAATGAGGGAATATGATGCCCTGCAGCTTTGTTCTTTTGTTCAGATTGCTTTGGCTATTAGGTCTTTTTTGGTT  
CATATAAATTTAAGATTTTTTCTCTATTCTGTGAAAAAAGACATTGGAATTTTGAAGGAATGCATTGAAT  
CAATAGAGGAACCTGCATTGAATCTATAGATGGCTTTGGATAGTGTGGACATTTTAACTACTAATTTCTTTCACTGCAT  
GAACATGGGATATCTTTTCAATTTATTTCTGCTCTTCTTCAAGTTGTTTAAATCAATGTCTTGTAGTTTCCAGTGTATAGAT  
CTTTACCTTGTGTTTAGATTGCTCCTAAGTTTTTGTGTTTTTTTTTTTTTTTTTTTTTTTTTGTGATGGAGTCTCGCTCTGTTGCC  
CAGGCTAGAGTGCAGTGGCGCATCTCGGCTTACTGCAAGCTCCACCTCCAGGTTACAGCCGTTCTCCTGCTCAGCC  
TCCCAATTAGCTGGGACTACAGGCGCTGCCACCACACCTGCCTTTTTTTTTTTTTTTTGTATTTTAAAGTAGAGAYGGGT  
TTCATGTGTTAGCCAGGATGGTCTCGATCTCCTGACCTCATGATCTGCCGCTCGGCTCCCAAGTGTGGGATTA  
CAGGAGTGAGCCACCACGCTGGCTGCTCCTAAGTATTTTTTGTATGCTATTGCAAAATGGGATTATTTCTTAATTTCT  
TTTTTGATAAATTTATGTCAAAGTATAGAAATGCTAAGAGCAACTATTGTTAAATCTAAATACTCACCAGTGCCCT  
CATCTTAAGTAATGGTATACATGAAATCATAGTTTGTATGTTCAAGTTATATTTTTTCTGTATTTTTTCTAAATTAAT  
GAATAACAAAATGAGAAAACATTCATCTTGCAACACCTTAAAGCATTTTGGCTACCATTACTAACACTGGGCATACTT  
TTGGACACACTAGTCTAAATCAGCTGCAAGAACAATTTAGAGACTAATTTATGTTTTTAAACAATCAACATTTTCTCT  
CTTTACCTCAGTTGGATTCTCCACTAGAGGAGAAAATGGCAAAATCGTTCAAGCAAAATATTCCAATTTCTAATA  
TTCAATTCCTTAGGCAGAAATGGTCCGTGGATTTAGAGCACCTACTATAGACAGCCTGCCTGAATTGGATTCTCTCTG  
CCTTTTACCAACGTAATTTGGGCCAYGTTGCCTTCTGTGCTTCAAGTTTTCTCATCTGTTAAATAGTTGCTGTGGTGT  
TTAATGAATTAAGATGGGAATGCTCTGACTGAGTCAAGAAATCACTAGATACTCAGTAGAACTCATTCAATTTCCA  
TATGTGAAGGAATAACATTAGTTTTTATTTATTTTGGGGGTGAGGTTAGAGAAGGTTGCTGCCATCTGATT

Fig. 6.338

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TCTATCCTTTTGATAAAGTGACCTAATAATATTGATACTAACCAAGAGGACTATTATAATGTTTTATTTACTCTTCTC  
CCCCATTAATCACTTTTTTTGGTGGTGTGTTTTATATGTTTTATTCCTTTATTTTCATCCTTCAAGGAGTTTGCCCTTTGT  
TTCCTTCTGTAATTTTACAGTATAGCTCATCAAGCAAGCCTGAGATTTTTGTCAGAATATCTGAAAATCTCTGAGCTTT  
TTCTAGCAGAAATGCATAATGCAGTGCAGAGAATAGTCTAGCCAGTGTTTTTCATAAATGAATGTACATACGTTCTTC  
CTCTGCATAAGACTGAAAGTAACCCAGGCACACAATATCTTATTAATATTTAATATTAAGAAAAGTATATTAAGAAGGT  
AACTCTCCATTCTACCTCTCAACATCTTACCATCTAGTATACACACAAATATTTCCCTTGCTCTATCAGCCGAGAGGGTC  
TAGAAGCTTACCATACCCAGTACGAATGAGCACACTTAGCACCTCATTTTGGTTTCTAATACCATTCTCTGGTAAAAG  
GAACCAAGACTCTTTGAAAAAAATAGCTGATTTCTAGGGACTCAGGAAGGAAATATGTAAGATGAGCCTGGAGCATCT  
TGTAAGTGCACAAAAGTAAGGACCTGCTCAACAAATGGAACCTACACCCGTGGGAATATACTGAAGAGTTGCAAGAGC  
AAACTGAAAGAGCTCCCAATGGCCAAAGCTAGAACAATTTGAGCAAGAAAATAATATAGTATTGGATTATATCCCAAAG  
GGTAAATAAATATCCATAAAACCATATTGATACAATTTATTAAATAAATACCTAAGTGGGGGAAAAATAGACAAATCTC  
CTCCTGTGCGGAATTTCCCAATAACTTCTATAGATACTCTACTCTCAAGGAGGGGAGAACATAACCCCTACACCGTAAGT  
GTGAGCTGTGCATATTGACTTCTTCTAAACAGTACAGTGTAGAAAGGGGAAAAAAGAAACCTGTAGTGGAGAAWCCTA  
TCACAGCTTACAGTACCCAGTATCAAGGTCAACATTGACAGTGAATGATAACATGTACCTCGCATATTCTGTATGAA  
AATGGCACTTTTAATCTGTGGTTTCCCTACTGAAAACATATAACCCAGTGTAAATCATGAGGCAAAATACCAGACAGATC  
TCAGTTGAGGGATATTCTACCTCGAAACTTGACCAGTATTTGACCAGTACTCCTCAAACTGTCAAGGTTATCAAAAA  
CAAGGAAAACCTGAGATACCTACAGCCAAGAGAGCCTCAGGAGACATGAGGACTAAATATTATGTGGTATCCTGGATG  
GGATCCAGAACAGAAAAAGGAAATTACGTGAAAACTAAGGAAATCTGAATGAAGTGTGGACTTTGTTTAATAATAATG  
TATCAGTATTGGTTCAATAATTGTGACAAATGTGCCATACTAAAGTCAGACATTAAAAATGGGAAAACAGTGTAGAGTAT  
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TCGAAGCCTATCTTTAAGGCCTATCTGGAAATGTTACATCTTTATAAGCCCTTTTCTTTTAAATCCCATCTTCTTCCCT  
CCTATATCTGGGGTGTCTTATGTCTCCACCTCAGGCTTTCTAATTGGATACCTTTGACTTTCCACAGAACTTTTATT  
TGTAATTCTCTTAACTCTTAGTACAATATTTGTGTCTCTGTTTATTGTTCTGATGAGGTCTTCTACGGTGTTTTTAG  
CCCAACCCAGTGAGTGTCTGGTGCCTTAGACCATTGGCCATCCTGACACCTACACAGTGTGTCAATATAACATTT  
TGTAAGTGTGACATAAATTAGTACAAGATGCATGATGTTGGTTAATGCAATGCTGTTTTTACCTTGTATTGGTAG  
ATGGAGAGTCTGAGCATTCTACTTTGTGCTTTCAAGAAAGGTTTTTTCTTTTCTTTTCAGTGACAGGAATCCTGAGC  
ATTTCTCACTTAATCTCAGTCTGCTTTTAGATACTCATGTCTCAGAAATTTATCATAGTATATGCTAGATCAATCTC  
ATCTCGTTTAAATTAAGGTTTGTAGTGCACAGGCAAAACCATAGAGGCCATATTTCATGGTATATAAAGTCTCTTTCT  
CATCTCTACCTATTTTAGCAATAACATTTCTTATTAGTTTGTTCAGTGAAAATGACATAACTGAATACTTTCCCT  
GCTAGTCTGGGAAGAAAGGATGTGTTTGTGGCTTTTGCCTGTGAGAGATATTCTGCAATGTTTGCCTAGGGCATGCT  
TGCATTCCCATCAGCATCTCTGGTCTGCTGCACGTGTAATCCCTATAGGGACAGCCTCTGGCTTTTATTACTGACAAGCA  
GTGCACGTGTGAGCCATAGGCACCATAAATAGGAAACACCTTGGCCTGTGATAAACAGGTCTGGAGAGTAGAAAGTACAG  
GCCTGCTGGGGATGTGTCATAGCAAAGAGGCAAGATGCGGCTGCCATATTGGAGTAAGTGAGGCTAATGTCTGCCA  
TCTCCATTTCAGAAAATAACTGGCTGATTTTGAAGCTGCTTTTGTATAAACAGTAGTGTTTGGTTGCTTTTGTGTTT  
TGGCTTAAATATGAATAAGCCATCTTAAAGAGATTATACCTTTCAAGGATTTTGAAGATCTATAAAGTATTTTCC  
TTTTGTATTTTTACATTTAATTCTACCTGATCATTCCAATCCAAACCAATAGAGAAGGAAAAACAGATATTTCACTAT  
AGTGGGAAATTAGGAAAAAAGAACCATGCAAAAATACAAGTGATTGTGTGCTTTTAAAGAAATTACAAATCACACTG  
AATTACCCAAAATTACAAAGAAAAGTGCAATTTATTATTAAGGTAACCTGTGTGTCTGTGCTTTACATCAACTCCAAG  
TTTTATAAAAGGAGTACATTTCTTTGACCATAAAGACTTTATATTTGTTAGTGTTTTTTCAATCTTTAGGGAAAAAATG  
AACTGCAATATTAATGATAGGCTTTGTAGCAAGAATTTAGGAAGACAATAAATTTCAAAATTGGAAGGGTTATCACAGT  
TTTTAATAAAGAGATAAAATTTATTTATGAGTGTCTTTAAATATATAGGTGTCTTTTATTATTACAGGAAACCCA  
TTTTCAAAAGAGGCTAAAGACTGTAAAGATTGAACAAAGTATAATCTCTGTTAAAAATATAGATAGTTTAGGAAAC  
TAAAGTCTAATTTTTTTTTTTTGGACCTTTGGCCAGAGCTGTTTATAAATTAGGTAATCAATRTTGTGTGACTAGTC  
CCCTCCCTTGTAAAAACTAAACACTTGTCTCTTGTATCTTTTTTAAAAAATATTTCAAGTAAGTTTCAACAGTATG  
CTGTGATAAGGATGAAACCTATTAACATTATCCTTGGTATATATTTTGATTTCTGTTGTTTCTTAATCTTATATTGT  
CAGTATGGTTTTCTAAGATCTAAGATCTCCATAAGGGTAAGTGATAATTGGGTTTTGATAAATCATAAGGAATCTTCTAC  
TAGAAATATGTCTGTTTATTTATTGTATCATCAGGAAMGATTAGTTTACTTTATGCCAGAAGATAATGTTTGGGCCTAA  
ATCTTAATTTTTCTATCTAGTGTTAATACAGTAGAATGCCTAAAGGATATATAGAAGAAAAGACAAAAAAGAGATGA  
AGAGAATGCATCATTACAGACTGAATCATCAGTCCCTACAGAAGGGGAATTTGTTCTTTCAAAAGTAGAATTTACAGCAG  
CCGGGCGTGGTGCCTCAAGCCTGTAATCCAGCACTTTGGGAGGCAGAGGAGAGCAGATCACGGGTCAGGAGTTAGAG  
ACTAGCTGGCCAAACATGGTGAAATCCCGTCTCTCTTAAAAATACAAAAATTAGCCAGGTGTGATGGTGCATGTCTGTAA  
TCTCAGTACTCGGGAGGCTGAGCAGGAGAATCACTTGAACCCAGGAGGCAGAGGTTGCAGTGAGCCAAGATCGTGCCA  
CTGCACTCCAGCCTGGGTGACAGAGCAAGACTCTGTCTCAAAAAAAAAAAAAAAAAAGTAGAATTACAGCTGGGCATGGT  
GGCTCACACCTGTAATCCAGCACTTTGGGAGGTGATCAGATGAGGCCAGAAGTTTGGAGCCAGCCTGGCCAAACATGG  
CAAAACCTGGCCTGTACTAAAAATACAAAATTAGCCAGGTGTGGTGGTGCATGTCTGTTATCTCAGCTACTCGGGAGG  
CTGAGCAGGAGAATCACTTGAACCCAGGAGGTAGAGGTTGACGTAATGGAGATGGCGCCACTGCACCTCAGCTCTGGGC  
GACTGAGTGAGACTCCATCTCAAAAAAAAAAAAAAAAAAGTAGAATTCTAGGAAAAATTTATTGTTGCTATTTAGCC  
TTATTTTTAAATATTTTCAGTATATTGTCTGTTTGTATCATATGAACAATCTGACTACAACCTATTGGGAAACACCAGTA  
TTTACCTTACCTTCTAATGTAAGGCATGATTCCAGGTATTTCTCATACCTCAAACCTTAAATCTCTAATTTAGTCCCA  
GAAACAGTATTCTACATGTCAAAACGTTTTTTGTTTTGTTTTGTTTGGAGACAAGTTCTACCTTGTCAACCAGGCT

Fig. 6.339

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GGAGTGCAGTGGCGCCATCATGGCTTACTGCAGCCTTGATCTCCCTGGCTCAAGCCATCCTCCACCTCAGCCTCCTGA  
GTGGATGGAGCCACAGGCATGTGCCACCAGACCGGCTTTTCTGTTTTTAAATTTAACTTTTTTTTTTTTTTTTT  
GTAGAGACAGGCTCTCACTATGTTACCCAGGCTGGTCTCAAACCTCCTGGGCTCAAGTGATCCTCCTGCCTTGGCCTCCC  
AAAGTGCATGAGCCAGTGCACCCAGCCTCAGAATATTTTTAAAGATGAAAACCTAATGCTCAGTTAACTTTTTATAAGA  
TCTATGTGCTTCTAAATAAGTGTAAAGATGACTATTTTTCTGGATGTTGTATTGGTGGGGAAGATGGAGAGATAGAAGAA  
CAAGTGTGTTATTTCTGCTGTTGTTATTTCTCTCTCTCTCTCTTTTTTTTTTTTCTTGGATTTAGTCTTGGACTGTTGC  
CTGGACTGGAGTGCAATGGCGTGATCTAGGCTCACTGCAACCTTCTCTCCAGGTTCAAGCAATTCTCCTGCCCTCAGC  
TTCCCAAGCAGCTGGGATTACAGGCGCCTGCCACCACGCTGGCTAATTTTTTGTATTTTTTAGTAGAGACAGGGTTTCA  
CTATGTTGGCCAGGCTGGTCTCGAAGCTCCTGACCTCGTAATCTGCCACCTTGGCCCGCCAAAGTGTGGGATTACAGG  
CGTAAGCCACTGTGCCCGACCTCTGGTTGTATTTTCAAAATATATCCAAATAATTTTTTAAATGTATTTAGTGAGCA  
CTAGATTCCCAATAGCAAGAGCAATTTAGCAAAAGTATAATTCCTAGAGAGGAATCCTACAGTACCTCGTTTTGCCTT  
TTTTGTTCTCTAGGTCTAGTCTAGGATGGGAGCATAACTGACCTGGCCCTAGTTCTAGGAGGAGCATGTGCCCTCTAAC  
ATGTGCACAGAAGGATAATAGGCTCAGTGGGATGAGGAGACCAAGTGACTAAAGCAGATSTGAGAATCTGAGCTGTAA  
GGATTTGGAGGTGGGATGGAGGGATAAAACCTTAGTGGGAAGCAGACAGCAGATAGAGAAGATAGGATTAACCTCAG  
GAAGGTGTAAAGCAGGTTCTGATTTTTAAATTAGCCTRTTAAGAGGTTGTGTTGGAGGTCTGTTTTCTTAGTGGGGCA  
AAGTGGCAAGGGAAGTTTCACTTCTGAATAGGTTGAAAATGAAGATATAAGGAAAGAAAGAGAGAAAGAGGAAAGACG  
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ACCAATGCCCGTTGCTGCCCTTTCCACCGCAGGGTTCATTTGGTGAAACCTGGTTGGACTGAACCTTTAGGAGAACCT  
TGAAGTAAAAAAGAAATCCAGACAGGTCAGTGGCGGATGTAATGTTTAAAGGAAGAACAGACAGTCACTGTAGAAAT  
GGAGGGAGGGGTAGAGCTGACTGGAGAGCGATTTATGGATGGTATATTTTATGAGGCTTGAGTCTTTTTAGCACTAAT  
AGTTGGCGTCAGCTTACCTGTTGCTCCATGAGTCATGCCCTGGTAGCAGAGGATGGTGGGCACTGGGAGAACCTC  
CCCTGAAGGACCGGCTGCCTGGGAGTGGGAAAGGTGGTTGATGGGCTCTGAGACAGCAAGGTACAACTGAAATGGGG  
TGAAAAGAGACTGTCAAAATAAGTATGGGCTGATTTGTTCTAATATATCATAGGTTATTATTAGATGCTGGAAGAGTAA  
AATGGAATAGAAGATGAAAATGTGAACCTTTATCTTGATTCATTTTTAAATCTCTAAATTTCTGAGGAGCTTTGCAAT  
TCCTCTTCTGGATATAAACTGCCCCTACAGTAGAGTTGCAACCTTGGATAAAATAAAATTTGGCCTCCCTGAGCCTC  
TGTTTTCCCTGTAAATCAGGACTAACATAATCTACCTCAAAGGATTGTGTTGAAAATTAAGTGAACCTTACATAAAT  
ATGTAGTGTGGTGGGACATATGATAGTACTGTGGCTATCCTTAGGAGGATGAGGAATGGAATTTTAAACAT  
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ACAGAGTGTGCCTTTGAAATCCCAATACCCAGTGCATGGTATTTATGAGACCTTACCAGCTTGCATATGTGATGGCCCA  
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TCCTTTATTATGATTTCTTTGAAAGATATGAAGACAGCCATAAAAAAGACTCTTATTGAAGTTGAGAGGGTCTCCTGT  
AGCTCTTCTCAGTCTGCTCTAAACATTGGTCTGTTGCTTGTGCTTTGCTTTTCTCTCACCTGGATGACCTTCAAGG  
CTCTTCCAAATGATTTCTCTGATTCCCTGAAATAGTAAATGTGATTAACAGAAGTTTCAAGTGTAAATCAATATCAA  
GATAGTAGTTGTCTCTTCTGGGAAACTAGAAATGAAAACCAACATAGGCCCTCTGTAATCATTGCACAGATTAAAAA  
TGAAAATGCAGCTGAGAAACAGAGGAATGAATGAGAAAACCTTAAACCTAGTTCTAGCCCCAGGATGGGAGAACTTTGCA  
TGAGTCTGACGCTAGCCACAGCCGTAAGAGAAGGAATTCCTAGTAGTGTAGTTGTTACAAGGGAATGAGTCAATTTG  
CAGGTAATGTTCTTCTTCCATTTTCCACTTGCTGTGAGCCACTTTACAGAGGAGTGGACTTTGTTCTGCTTAAGAGA  
AGTCTCTTTCTTTTATTGTTTAAAAAATAAATAATTCAGAAAGCCTTAGAAAGAGATTGTGAGATCAACTGGTT  
TACCTTCTTCAATTCAGATGAAGTAAACAGCAGAAAAGTTATTTTGTCAAGGTTTCTGCTTGTAGCAATACAAAC  
TTTCTGGTGTAAACATATGACCTGATTTGGGCTTTACTGACATCATCACTTTTTTTTTTTTAAATTTCTGAGACGG  
AGTCTTGCTCTGTTGCCAAGCTGGAGTGCAGTAGACACAATCTCGGCTCACTGCCACCTCCACCTCCTGGATTCAAGTG  
ATTCTCCTGCCTCAGCCTCCTGAGTAGTGGGTATAACAGGTGCATGACCAGCCAGCTGTTTTTTTGTGTTTTAGTAG  
AGATGGGGTTTACCATGTTGGCCAGGCTGGTCTCAAACCTCTGGCCTCAAGTGATCTGCCACCTCAGCTTCCAAAG  
TGCTGGGATTACAGGTGTGAGTCACCACACCCGGCCAACATCATCACTTTTGAATGAAATTTTAGTTTGGTGTGACT  
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AATTATTTGTATGACATGTATCTGCTCCAGAGGTTCTTATAGGTGAAATGAGATTTTTATGTATCTGTATTCAAAACACAT  
AGAT  
TAATGTAAGCCTGTTGTGTGTTAATGAATGATAGGGTAATAATACATTATGTTCTCTGTTAGGAGGATTCAGATAT  
TCAATACAGAGGACCAGAAATGATTGGTCCCAGAAAAGTGCTCCTTAAGCTGGATCTTGAATACTGAGGATTTATATAG  
GCATCTAATAGGGAAGAGGTGGTATTCCAGGGGCTGGATAAGGCAGGGTAGGATGGGGTATTCATGTGGATTTCGCTTTA  
TTGTATGTTTGTGAGAGGAGGGTAGTGGGCATTCTGGAGGAGTGAGCCTCTCTGGAACAGAGGATGTGATTATAGGA  
CCAGTGGCAGGTGTGAGAAATGTAGATTGAGGCCATACTGCAGACTGTCTTAAATGCCAGGTCAAGCCATTTGCACATT  
GTCCTATAATTATGAAGAACCCTTACATTGACTATAAGGAAAATATTATGAAGAACTAAAATAAGGTGACTTTAGA  
AGGTTATATCTGGTGGTAGTGTGAGGATAGATTATATCAAGGGGAAATTTGACTGAAAGCAAGAAAGAAACCGTTAGGR  
AATTAGGTGTAAGAGTGATAAGGGCCTGAAATAGGATAGTGATGAAAAGAGAGGAATGAGTAGGAGAAAGATTGCACAG  
AGAAGGTGACAGCATACATAAGACTTGGCAGGACCACAGCCAGAAGAAAGCATGAAATTTCTAAACCTGAATAATGGAC  
AGAATTATAGTTGGAATAATCATGAAGAGAAGCCAGTTGGGTATTGGGGGAGGGCTGGACAATATGACAGTTAAGTTTTT  
AGACATATAATTTAGGTAAGGCTATGTATCTAAGCGGAATGCCCTATAAGCTTTTCAAGTTGTGAGGACTGGATTTCTGG  
TTAAAAAAGAGGGGGCAGGATTTTACTTGGGTGTTGTCTGCAAGTTGATAGCTAAGACCTTAAGGCT

Fig. 6.340



CATCCCATCAATACCGAATTTATTGAGAGTTTGTAGCATGAAGTCTGTTGAATTTTGTCAAAGGCTTTTCTGCATCT  
ATTGAGATAATCATGTGGTTTTTGTCTTTGGTTCTTTTATATGATGGATTACGTTTATTGATTGTCATATGTTGAAGC  
AGCCTTGCATCCAGGGATGAAGCCACTTGATTAGGGTGGACAAGCTTTTGTATGTGCTGCTGGATTGGTTTGCCAG  
TATTTTATTAAGGATTTTGCATCGATGTTTCATCATGGATGTTGGTCTAAAATTCTCTTTTTTGTGTGTCTCCGCC  
AGGCATTGGTATCAGGATGATGCTGGCCTCATCAAATGAGTTAGGAGGATTCCCTCTTTTCTATTGATTGGAATAGT  
TTCAGAAGGAATGTTACCACTCTCTTTGTACCTCTGGTAGAATTTCAGCTGTGAATCTGTCTGGTCTGGACTTTTTT  
TGGTTGGTAGGCTCTTAATTATGCTTTAATTTTTCAGAACCTGTTATTGGTCTATTTCAGGGATTCAACTTCTTCTGATT  
TAGTCTTGGGAGGGTGCATGTGTCCAGGAATTTACATTTCTTAGATTTTCTAGTTTATTGTTGTAGAGGTGTTAT  
TCTCTGATGGTAGTTTGTATCTCTGGGGGATTGGTGGTGGTATCCCTTTTACATTTTATTGTCATATTGATTCT  
TCTCTCATTTCTTCTTTATTAGTCTTGCTAGTGGTCTATCAATTTTGTGATCTTTTCAAAAACCAGCTCCTGGACTC  
ATTGATTTTTTGAAGGTTTTTGTGTCTCTATCTCCTTCAGTCTGTCTGTATCTTAGTTATTTCTGCTTCTGCT  
AGCTTTTTGAATGTATTGTCTTGTCTTTTCTAGTTCGTTTAAATGTGATGTTAGGGTGTCAATTTTAGATCTTCTGCT  
TTTCTCTGTGGGCACTTAGTGCTATAAAATTTCCCTCTACACACTGCTTTAGAATGTGTACAGAGATTTCTAGTATGTT  
GTGTCTTTGTCTCAKYGGTTCAAAGAACATCTTTATTCTGCTTTCATCGCATTATGTACCCAGTAGTSATTAGGA  
GCAGGTTGTTTCAGTTTCCATGTAGTTGAGTGGTTTGAATGAGTTTCTTAATCCCACTTCTACTTTGCACTGTGGTCT  
GAGAGAAAATTTGTTATAATTTCTGTTCTATTACATTTGCTGAGGAGTGGCTTACTTCCAACATGTGGTCAGTTTGG  
AATACTGTGATGTGGTGTCTGAGAAGAATGTATGTTCTGTTGATTGGGGTGGAGAGTTCTGTAGATGTCTATTAGGCT  
CGCTTGTGTCAGAGCTGAGTTCAATTCCTGGATATCCTTGTTAATTTTCTGTCTCGTTGATCTGTCTAATGTTGACAGT  
GGGGTGTTAAAGTCTCCCATTTATTATTGTGTAGAAGTCTAAGTCTCTTAGTAGGTCTCTAAGGACTTGCTTTATGAATC  
TGGGTGCTCCTGTATTGGGTGCATATATATTAGGATAGTTAGCTCTTCTTGTGTAATTGATCCCTTTACCATTTTGT  
ATGGCCTTTTGTCTCTTCTGATCTTTGTTGGTTAAAGTCTGTTTTATCAGAGACTAGGATTGCAACCCCTGCTTTT  
TTTTGTTTTCTATTGCTTGGTAGATCTTCTCCATCCCTTTATTTTGGAGCTATGTGCTCTCTGATGTGAGATGGG  
TCTCCTGAATACAGCGCACTGATGGGTCTTACTCTTTATCCAATTTGCTAGTCTGTGTTTTTAAATGGAACATTTAG  
CCATTTACATATAAGGTTAATATTGTTATGTGGGAATTTGATCCTGTCTTTATGATGTTAGCTGGTTATTTGCCAT  
TAGTTGATGCAGTTTCTTCTAGCCTTGATGGTCTTTACAATTTGGCATGTTTTTGCACTAGCTGGTACTGGTTGTTCC  
TTTCCATTTTAGTGCTTCTTCCAGGAGCTCTTGTAAAGCAGGCCTGGTGGTGACAAAATCTCAGCATTGCTTGTCTG  
TAAAGGATTTTATTCTCTCTTCCCTCAGCTGGAAGCTTAGTTTGGCTGGGTATGAAATTTCTGAGTTGAAATTTCTT  
AAGAATGTTGAATATTGGCCCCCACTCTCTTCTGGCTTATAGAGTTTCTGCTGAGAGATCAGCTGTAAGTCTGATGGG  
TTCCCTTTGTGGGTAAACCCGACCTTTCTCTGGCTGGCTTAAACATTTTCTCTTCAATTTGGTGAATCTGA  
CAATTATGTGCTTGGAGTTGCTCTTCTTGGAGGATATCTTCGTGCACTCTCTGTATTTCTGGAATTTGAATGTTGGC  
CTGCCTTGCTAGGTTGGGGAATTTCTCCTGGATAATATCCTGCAGAGTGTTTTCCAACCTGGTTCCATCTCCCATC  
TTTCAGGATACCAATCAGATGTAGATTGGTCTTTTACATAGTCCCATATTTCTTGGAGGCTTTGTTCAATTTATTT  
TACTCTTTTTTCTCAAACTCTCTTCTTGTCTTCAATTCATTTCATTTCATTTCATCTTCAATCACTGATACCCTT  
TCTCCAGTTGATGGAATGGCTACTGAACTTGTGAATGCATCATGTAGTTCTCATGCCATGGTTTTCAGCTCCATCA  
GGTCATTTAAGGTCTTCTCTATGCTGGTTATTCTAGTTAGCCATTGTCTAATCTTTTTTCAAGGTTTTTAGCTTCTTT  
GCGATGGGTTTGAACATCTCTCTTTAGCTCGGAAAGTTTATTACCTCTGCTGAAGCCTTCTTCTCAGCTTGTCTA  
AAGTCATTCTCTGTCCAGCTTTGTTCCGTTGCTGGTGAGGAGCTGCATTCTTTGGAGGAGAAGGAGCTCTGATTTT  
TAGAATTTTCAAGCTTTTCTGCTCTGTTTTCTCCCATCTTTGTGGTTTTATCTACCTTTGGTCTTTGATGATGGTGAG  
TACATATGGGGTTTTGGTGTGGATGCCCTTTCTGTTGTTAGTTTCTTCTAACAGTCAGGACCCCTCAGCTGTGGGTC  
TGTTGAGTTTGTCTGGAGGTCCACTCCAGACCCCTGTTTGCCTGGGTATCACCAGCAGAGGCTGCCGAACCGCAAATATT  
GCAGAAGCGCAAATGTAGTACCTGATCTTCTCTGGAAGCTTCATCTCAGAGGGGCATCTGGCTGTATGAGGTGTCA  
GTTGGCCCTACTGGGAGGTGCCCTCCAGTTTACGCTACTCGGGGCTCAGGACCCGCTTGAGGAAGCAGTGTGTCCATT  
CTCAGATCTCAAACCTCATGCTGGGAGATCCACTACTCTTTTCAAAGCTCAGTTGGAATGCAAGATCACCCGCTCTT  
TGCATCACTCATGCTGGGAGCAGTAGACTGGAGCTGTTCTATTGGCCATCTTGGAACTCCCCAGCTATACCTACT  
TTATTGGATTTTTGTGTCTCCATCAGCTGACATGGTACTTACAGCCTAGAATGAGCATACAAAGGATACTCATTCCGTA  
TTCCGATGATGACTGACAAACAGTCTCCCAGGATCACCATGAAATAACTAACTGAGTTGATTTATTTAAAAATCAGGT  
CCAGGTAACAAACTGCACCTGTCCCCTTGAATTGATACAAATAAAAAATAAAACAAAAAAGGACAATATTTTACTTTATG  
GAACCTTTTATTACAAAGATTAATAAAAAATAAAATAACTTAAAGAATACTTTGACTATTATTTTATCACCT  
AAAGGCTTCTCTTATTATTTATTTTGGAGACAGATCTCTGTACCCCGGCTGGAGTGCACTGGCGCATCTCAGCT  
CACTGCAACTTCTGCCTCCCGGCTCAAGCAATTTCTCCTGCTCAGCCTCCGAGTAGTGGGATTACATGAGTGCACC  
ACCACACCCTGCTAATTTTTTGTATTTTGTAGAGACAGGTTTTCCCATATTGCGGAGGTGATCTCAAACCTCTGA  
GCTCAGGCAATCTGCTGCTCGGCTCCTAAAGTGCTAGGATTACAGGCATGAGCCACAGCGCCCTGCCAACCTTGAAG  
GCTTTTCAACATGGGAATTTCACTGAATGTTGTATCATTAAAGCTAATGTGGACCTTGGATAACTGTATGCCRTTTTT  
TGGGAAATAATGTGGAGCTCTTGAAGGGTAAAAATGGTGTATCATACATAACTATGCTGAGGTTTTTGTGTTTT  
GCATTTATCTTTGGGCAAGTTTGAAGTTAAGCAAACTCGAATTTGAAATAATTTGATAACATCAGCTAATATTTTTC  
AAAGTTAGATTTTGGAGGTATAATTTACATAAGATTACTCTTCTAGAGGTATAGTTGAATGATTTTCAAAATGTG  
TACAATTGGATAACCACCACATAATCTAGATATAGTGTAATGTGTAATATAATATATGCTATATAATATAGG  
ATATTTATACCACCAAAAAGTTTTCTTGTCTTTTATAGTCATTCCCCAAACCCAGCTCCAGTGTGATGTGCCCT  
ATGGTTTTGCTTGGCAGAAATGAATAATACATTAAAGATATAGCCTTTTGTGAATGGCTTCTTCACTTACAATACTT  
TGAGTTTTGAGTTGAATTATAAGTTTCACTTATAATACATTTTGTGTTATTGTCATCTATTGGTAATTTGTTTTCAATTTA

Fig. 6:342



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TTGCTTTT TAGTATTT CATTTTTT CCAGTATGTCATTTATGGACACAATTTGTTTACCCATTACCAGTTGACTGAT  
ATCTGAAGTGTCTGGGTTCTGCTATAGAGAGTTGCTATAAACATTTTCATATAGGTCTTTATAGACATATGTTT  
TCATTTCTCATGGGTAGATACTTAGAAGTAGGATTGCTGGGT CATATGGTCACTCTACTTTTTAACTTTATAAGAACT  
GTCAAACCTTTTCCAAAGTTTCTATACCATTGTGCATTCTCACTAGCAATGTATGAGAATTAATTTGCTCTGCATCC  
AGGCCAGCATTGTATTGTTTGTATTTGTATTTTATACATTCTAGTAAGTATGTAGTGTGGCATCTCACTGTGGTTT  
TACTTTTTGTTTCCCTAATGTCTAATGATGGTCRTGGATCTTTTACATGCTTATTGATCTTTTGTATTCTTATGAAGT  
GTTTGTGTTGTTCAAATCTTTTGACCATCTTTTAAATGTATTGTTCCACAAAGCATACCAGAAGTACAGAGGGACATAA  
TTTCTGGATACAAGTCCCTTTATTGTATATGCATTTTGTACATATTCCTTCTCAAGTCTGTGGCTTGTGTTCTGTTTT  
CTTAACAGTTTTTTTCAAAGAGAAATTTGGTAAAGTCCAGTATACCATTTTTCATTTTATGCTTCATGCTTTTGTGGTT  
TAAGAAATCTTTGCTAACGCAAGATCAAACTACTTCTACTGTGTTTTCTCTAGAAGTCTTTAGTTTTAGATTTT  
ACATTTAGTCTATGATTCAATTTCAAGTAGATGTTAGTGTGGTGCAGGATAAAGGTTGAAGTTCTTGTTTTATGAGTG  
GATGCTCAATGTTCAGCATTCTTTGTTGAAAAGATATCATTCTCTTTTATAGCTCAAATTTTATTACTTAAAAT  
ATTTTAAAGTAGCATATTAAGTGATATGTGTAAAGATTATATTTCTGGAAGCATGCCTATTTACACTAGTTATT  
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AACTATTTTATGATGATTATGGTATTCATTTAGGCCAATTTAAGTGAATTGGAGATCCTAATTTTCTCTATAAGGAGAC  
AATACTTTTTCATACAAGATTATTTTGTGGAGGCTTCATTTATGTGAAGTTTTTGCACCCATTTATTGTCATGATTAT  
TCTTCAGTGAACAAAAGTCTGTAGTAGATATGCTGCTGCTGCTGTTT TAGGTAAATTGACTAAATAGTTATACAAA  
CTCTGCTCTTACCATATATGAATCAAAGTGTATCAACAATTACAGAACTATGCTAACATCTAATAAGAGAGTTAGC  
CCATGTAGAAGAGAAATATAAATACAGCTATCAGATCAGTCTCATGTTATTTTCAAGCTTCAAGGAGCCTCTTAGCAAAAA  
TGGTTTTCTTTCCATACATGTTGCAAGGTGTTTACTATTTTAAATGAGACTTTTTTGTGTAAGAAATTTAAATAAG  
ATCATTTTGAAGCATTTCTCAGCTTGTTCAGATGATTATTTGTTTAAAGAAAGCAGCTTGGAGTTTCTCTTAATCTC  
AAATCTCCATAAACTTACAAGAGATGTTTTTCAATTTACTGAAAGGAATAGTTTTTCTTAATCAAATGTAGAGCCATTA  
TCACTAGAGGGCAGTAAATACAAACAGATTTAGTGGATTTACTGGCACTAACGATGTTTTTCAAGTACTAGCATTAATC  
AAAGAAAGTATAGTTTTTATAATATGAAATACATGTAACATTCTGTTATGTAAATATTGTTTATGAATCAATCTAG  
ATTATGTCCTGCTCTAAATATTTTTAAGGCATTGAAAGCAAAGGGAGGCTGAGAAACACTAGTTTTCTGTGGCTAT  
TCTGTTTAACTTGAAGTTTAACTTTGCCTCAGAATTTCTCAAGGGACATTTAAATTTAGATTTGCATTTGTTCAAG  
CTGAACAGTACTGGATATATGAGAGACCAGTTATATAGATTGCTTCTTGATTAATAACTACCAGACTTTTAAATTTT  
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TGCTACTGCCTGGAATACTCTTATGTTGGAGAGGTCCAAGAGCTAATACACTTATTTTAAACAATATTTCTTAAATAT  
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CCTGTTACTTACTACTGGCTTTGTGACCTTGAGCAAGACAACCTTGACCTCTCTGAGCCTTAGTTTTCCCATAAATTTAGT  
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CCAGGCTGGAGTACAGTGGTGAATCATAGCTCACTGCAGCCTTAAACTCCTGGCCTCAAGCCATCCTCCACCTCAGC  
ACCTCCACCTCCACCTCAGTAGTATCTGGAATACAAGCATGCCACCACCTGGCTAATTTTTAAATTTTTTGT  
AGAGACGGTGGTTTTCTCTATGTTGCCAGGCTGGTCTCGACCTCCTGGCCTCAAGCAATCCTCCCGCATTTGGCCTCCCA  
AAATGTTGGGATTACAGGCATGAGGCACTTACCAGGCCAAGAACTATTTTTTCTATTTCAACAAACACACTTGCATA  
TATGTATATAAAATCATTGCGCATTTGAGAGCAGTGGATTACAGATAAGAAACCTGAGCTCTAGCTGTAAACGCTGTCC  
CTCAAGTTGTGTTGTGCAAGCTTTTCTGGACCTCAGTCTCTGTCTGAATGTGTGCTCATCATTACATGATGAG  
GGCAGCTGTGTGTTGTTACATAGCGCTCCCAAACATAAGCGTGTCTCACTATATGGCAGGGCTGTCTGCTGTGGCA  
CCTGCTTCTCACCCTGTCCAGAGATCTGACCATGGTGATAGTAACCATGATTCTTTAATTCAGGCACTGTAAAGTTA  
GCAAAAGATTGAGGATAAACAATCCACTCTAGATTCACTGTTTATCATAGAGTTTGCATCAGCCTAATTATATG  
ATGAGCTGTCTACACCATTAAGAGCAAGGACTGGGTTTGCAATTTCAATCCTGTACCTATGGAGCAAGTTATTGAATA  
TGTAAGAAGGTCCATCTTTTCATGTTAAATAGGGATAATATTTATCTTATCAGAATGTTGCCAAGATTAGAAATGAGG  
TATGTAAAGTTCTTTGTGCATAGTAGGTGCTAGTAAATGTTGTAACCTTATTAAGTTTCTTCATTAATTTGGTGAAG  
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TAGCAGCTACCGTGGCAATAGGAAGGAGATTCTAGTCTCTAGAAATGGAGATTAGGGAAAAATGAATTTTAAAT  
TGGCTCAGAGATTTTTGAAAAGATTTCTTATCCCTAGAAATATGGAACCTTTCTTGGTACTTTTTTACTCAATATGAT  
TAAATAATCTCCCTTATTCAGCAAAATAGGCACTTATTTGAATAAGTTAAATCCTTTTACATCCAGCACCTATTAGAA  
TGCTTGGCACATAATAGTTGCCAAATAGAAGTCTGTTGAATGAAGGGACCATCACTCACATTGAGCAGGGAGAGAGGC  
TGCAGATTTTAGAGGGAAGGGAACTGTATGTGTGTTTCTGCATAATGTTTAAAGACAAGGAGTATTATCTACTATATG  
TAATCTGTTTTAAATGTTTTTGATGATTTTGTGAGGGTGAACCCCTTGCTCTTCTGTCTACCTATAATCAGTATAA  
AAATATTGATGTTTTTGCATCTGCATCAGCCAACAATCTTTTGTGGCAATAGTACACTTGAAGAAATACAGGGACA  
TAATAAGATACTTTTTCTGGCCTCAAAGATCCTCCACCCTGGATGAGGAGTCAAAGTTGAAGACAGTTGAAAAAATAGA  
ACAGTGATTTCTTAACACTGGGGAACATTGAGAAATTTGAGGGGACAGTGAAGTGGGAGTACTCTGCTGTGTTGGTGGG  
CAGAGGCCAGGGAGGCTAGATGCTGGGATACATGGGACAGCCTTTTACCAGGGAGGTTTGTGTGTGTCCACACAA  
CTTCCAAAAGTCCCAGCAGCTATTACATAGGTGAAAAACAATGCATTTATAATTTCTGTAGCCTAGAACCCAAC

Fig. 6. 343



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TACTTTTTACGTATAAGTATTAAATATTTTTACATGGTTTTAATCCACACCAAATTTCTAGTAATGCAGCAATAGTGT  
ATATTGTGAAGATGGCACTTTGTTACATTGAAACCTTTCAAAGAATCATTCATCATATCAGGAAAAAGGAAAATTTTT  
CTAACATAACACCCCTGTATTCTATTTTCATGCTACTGTTACTTTTGTGGTAATCTCCCCATAAGAGAAATCATAGCAA  
ACCCTTAGATAGCACTTACTGTTCTAAGAGCCTTATGTATATGCACTAATTTAATCCTCACAACACCCCTGTAAGGTAG  
AACTATTATTCTCATTTTCCATGTGAGTAACTGAAGTATGGGAAATTTAAATAGCTTCCCCAAGGTCACACAGCTAA  
TCAGTTATAGTAGTTTTTGACTACTTTTTAAATGTAGTTGTGTACAAGTATTTATATTTTGTAGTATTTGATAGAAAT  
TACTCATTTCTCCTTTATTTTCACTGATAAGCATTATACTGATTTTTTTTTTAAATCTATGTAGGGAGTATTTAGCCTA  
TATGTATTCACTACAGTATTATGAAGGAAGTGTATTTAGGAATTTTCACTTTCAGGATGAATACTTGTGTATAAAAAGTAAA  
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CAGTGAGCCTGACTGCAGAGTGAATTTGCATTTAAATGACAAGTGGTATGACACTTCCACCTGTTCTTCAGGGAGCCT  
CACCAAGTATGTTTTGCCTCGAGGCCTTTGCTTTTGCCATTCCCTCACTTGGTTTTCCCTTCTTACCCTACCTCTCACC  
CCGCAATCCACATGGCTTGTTTTCTTTCTTTCAGATCTCCTGGTATACGTCATCTCATCAGAGGGGCTTTCCATGATCAC  
CTTATGCACTGCTCTATCCGTAATCCTTATCCCTTCTTCTCTCATTGTGCTTATCACCCTATGACGTATTATGTATT  
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GGAGCTTAATAAATATTGAATGAAGGGCAGATGTAGAATCGTTAGAATTTGGAAGGAGGCTGGAATATTTGGTCTTAA  
GATGTACTTTGAATGATTTAAATCTGACTGAGAAAACAGTTTGAGGTTGGCAGAGTAGAAGAGGAGGTATTTTAGG  
CCGAGAATTTGGTAAGACAGAGATGGGATTGTGAGCTGTATGGTGAAGGTGGAGGARTACTAGTCTTTTCCAGGAACAGAG  
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TCAATAGAGCTAGAAGGGGAAAAGCCAGGGGCAAGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT  
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AATATTAGTATAATAGAATGATTATCATAATGATCATTGTCACTGTCTCTTACTGTCTGATACCTTATCTTCTCAA  
CTTTGTACCATTTGTTGTTTTAAGTGTCTTGCATATATGGTCTCATTAAATCCTCATATGTATCTGTTCTGGTTATTTA  
TTGCTATGTAAGAAATCACTTCAAACCTAATACTTTGAAATATGAATGTATTTTTATTTAGTCTTTCATGGCTTTGTGGGT  
TAACTGGTCTTGGCTAGACATTCCTGCTTGGCATTCTCTCATATGGTTGCAGCCAGTGGGTAGCTATCTGAAGCTGAA  
CTGGCTGGATGGCTAGGATGGCTTCTTGGCCCTCAGGTCTGGCTCTGGGCTGGGGTGGCTGGCATTGCTGAAGACTGGC  
CAGGCATGTGTGCTCTTCTTGTGCAAGTGTCTCTTGGCCTTCTCTCTTCACTGTCTGTGAAGTTAACATGGACTTC  
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CCAATCAGATTCAGTGTAGGACAGTGTGGCTCATTAAAGATATCTTTGGAGACTAGCTGCCACAGTAATCCACTTTAC  
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AYAACTGAAAGAAACAGCTCTGGATAAAAGATAGGGCTTGGCTAACAAAGTTGAATGAAGGAGGGAAGGTGATGCCGTA  
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ACACCTGTTGAATGGTAGGAAAGAGTCATAGATTCCATCTGAGATACTGGAAGAAATATAGGCTCACTGACTGAAATGG  
AAGTAATTATACTAAGAACTACTTTAAATAGAAAAATGTCTCACAGTTTTGAAAAAGTTTGTCTGACTAGCAGGGCAT  
TCGAGAGGAGAATCTTGTATTAGAAATATGGCACTGAAGTTCAAGTTAGAAGTGGTCAATGAAGATTGTGGGCTAGG  
GAAAATTAAAGAAGTTCAAGATCCTGGGAGTTGAGGGAGAGTAGTAGGAATGATCAAACATGTGGAACACTTCAGAGAA  
GTAGGGAGACCAGAGAAAAGGAGGACCTTAGTATTCCTCTGGGGGTAGCTTTAGTGGAAATGTTGGAGCTTTAATTTCTT  
CCTTTTGTAGAGGAGTAAGAGTATGAAATGAATACACAGATGTTAAACAAAGCAGAGGACTGTAGCAGCTAAAGGC  
CAATAGAACTCAGAGAGACAGTGTACAGGAGTCTTATCAGAGAGCATGCTCTCTAAGACAGACATGCCACATGT  
GGAAATAGTTAAATGTGAGGAAGACTGCAGAGTAGCCATACCAGCAAGTTAAAGCACAGAGTAGTAAGCACAGGCTTTG  
AGATGGAGAGGAGGTAAAATGCACAGAATTATATGCTAAAATCACTAAAACCTAGTTTTTCTTGTCTTCTCACCACA  
AGACCTCTTTAGTATTAAAGTTACAGGGTAATACTACACCAACCAAAATAGAAAATGCTGTTTTTCTAGAAAGAACTTT  
GATTTCTCATTTAACCTCCTCGTAAAATGTCTGATTACTCTTGTAGCTCAATCTGGATTCTTAAGAGCCACTCATTC  
TTTCTTAACCTTTGTGTACAGTTATTTAAATGTTCTGTTCTGGCTGGGCACGTTGGCTCACACCTGTAATCCCAGCACTT  
TGGGAGGCTGAGGTGGGCAGATCCCCTGAGGTGAGGTTTGTAGACAGCCTGGCCAACATGGTGAAATCCCGTCTCTG  
CTAAAATACAAAATTTAGCCAGGCGTGGTGGTGGGCGCTGTAATCCAGCTTCTCGGGAGGCTGAGGCAGGAGAAATC  
GCTTGAACCCGGGAGGAGGAGGAGTGCAGTGCAGCAAGATCGCACTACTGCATCTAGCCTGGGCGACASSGAGACTCTG  
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AACTACAGTCACTTTTACATCACCAGGAGCCATTGTTTTGGATTGAGAGAGGGAAGCAATTTAAATGCTCGATTGC  
CATTTTTGGAGCAGTTTTTATTTGGAAGGAAGGGAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG  
TGGGCAATTTCTTAAGAAATGAACACGAATTTTGGAGGTTTTATGGTCATTATTCATCAGTGAAGAGGGAAGCCCGT  
TCATCTTTTCTCAGGCTGGCCTCAGAGCTGCAGGGATACCATTAATCAATGGCGTTTGTGGGTGAGGAGAAAGCCTCC  
CCAGAGGCTGGCCCTTGCCAACCAATCCCAAAGCAGCCTGCACCGAGGCCACACCCCTCGCCTTATAGGCTAAGAGCT  
GGAATGCAATTTGGTGCAGAGTTGGGGTTTTATGGGAGGGGCTTCTGTCACTCTTCCCGGCTTCCCTGCAGTTCCTTAT

Fig. 6.344

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TTGGTAGCTTTTGACAGGACTAGCCTTTCTTGCAACTAAGCATCTTGACATACATTATTCATTAAGCCCTGGAGCTCGG  
GAGAGAAAGATGCAGACCCTTAGATCTTTAGATATTCCTTTATCACGTGGATTTTCTTTATTCAGAATAGTTGCTGAAT  
TTTGTGCCATTCTGGAGTCTTACAAATGGCATGTATTGATGGGAAGACGGCTGGATGGGATTAATGCGAGGCTTTCT  
TATGTATACTTAATTACCAAAAATCTTTAAAAACTCATACTCTGCGTGGCTTGTGGAGGTTGTTAAAGTGTGCGAGATTT  
TGAAGCTAAATACATTTTAGAGCTKWCTATATATATACATATATATATATATATACATATAATCAATCAAAAATGCCTG  
AAGCAAACCTATTACTGTCTGAGTCTTGGGGCTACATAAAGGTAAGACTTACTTAGCTTTTGA AAAACTCCTTACTCTGA  
TTACAAAATTTATTTAGAAAGCTTAGACTCTACTGTAATTTGTTCAAACCTATCAGTTATGTAATCTTCTTACACATGA  
ACTAGGAAGAAATACGTGTTAATAGTGGTCAAGATAAGATTGTATAACTTTTCATCAGTTGTAGTTTGTAGTGTAAAAATA  
GCTKTTTTTAGATACGCGTAGTCTTCTGTTTGTGTCATGTGGTATATGTTTGAATTGTGCTTGA AAAATATATGGTAATT  
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TTAGCTATAAAGCCCTAGGTGACATTA AAAAATGACATTACTTAACATATGTAAGTGATACTAAAGTGAAAACCTTGATTG  
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AATAAGATTGTGTTCCATGCTTGGCAGGCTTTTTCCATGCCCCGTGGTAAACATTAGCATTGTCTCCCAATTA  
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ACCTGGGAGCCAATCACAAACATTTTAAAAGATTCA TTTTCTGTTACTCTGAGGATTTTTTCAGATTGGAGTGTGTTGTC  
GTTTGTCTTTGTTTCTTTCTTTTGAAGGACAAGTCCCCCTTTGTTTTAGAGATTTACTTGAATTTCAAAAAATTAGAA  
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AAATGTTTTTAAAAATATATAGACTTCCATTATTTGAATTTTGTGTAGCCATWTCTTGGCTAAAAATCTTCAGAAATGCAG  
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ATCTACATATAGAATTTTAGTACGTTTCTTTTTGAGGAAAATTTTTCTGGACAGCTTTATGTTTAAATCTGTACCTTT  
AAAAACATGTAAAAATAGCAAATATAGATATATTTGGTCTTATGCATTTTGAAGGTTTTATTTTTATACCATCAATGGA  
GTATTTGTTTAAATAACTTTGAATACTGATATCTACAAACTTGTAAATGCATCACAGTGCAGCATATTCAAATGATTTT  
TAGCAGAATATTGTGAGGAAAAATAAGAAAATTTTCTTACTATTTGGACCCATACCCTCCTTAAATATATATTGGGA  
GGATATATAATATACCCAGTAGCACACTGGCGTGATGTAGAAGTAAAGGAGATTACATTTAAGGACATTTTGTGTTTTAT  
ATTTTAGTTTGTCTTCTGAACAATCTTAAATGCCTAATGTAAATGAAGAATTGCAGTTCTGAAAAGCAAAATACAGTA  
TTGAGATTTCAATTGCA TTTTACTTTTCTTTTATGCCTTAACGTGTACACAGACATTTCTGATGTATAATGAGAACAA  
GGATTCAAAAGCATTCACCTTAGAAATCCTCCCCGTGTTTTTTTAGTTGCAACCTTAAATCTGTGTATTTGTTTCAGACTA  
CTTAGGCCAAAAACAATTAGAAATTCATCAATGGAAAATATTAGAGGTCACCTTAAAAAATAAATCAATGCTTAAAT  
GGTCTGCA TTTTACAATCGGTTTCGTTTCAAACAGCAGTTTAAATGTTTTGTCCCTTCTAAATATATTAATTGAGAAATA  
TGATGGGATTTCCAGAAAGATACATTGTATTAGCTTTAAATCAGTCCTTCCCCCTTTGGTAATTTTATGTAGTTATCT  
TAGTAAATATTATATAATTATTTTATAGATGAGAGAAGTATCACATTTTTAAATGTTTGTGTAATGATCTAGTGCATTTT  
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AAAATACCCCTGTGTTATAACTTAATGTACGCTTCAGAAATATCTTTAGGAAATTCCTTAGACCTGCTTCTCAGAGTAG  
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TGGGAATAATGTATATGACCAGAAAGATGAACATGCAGGATGTCACTTATCTAGTCTGTACAATATTTAGATTCCCTTC  
ACTGGCTTTTTCTTCAGTTATCTGTACTAACTGGCTATTTTGGTGAATGTTTAAAGCAAACCTGCCAGGAAAATTATAC  
TTCGTTCTTTATATTCTTTTAGAAAAATCCAATAATATATGATAGCATATCTGCAGGTAGCATCCACATGTTCTCTTTGG  
GCAACATACCTTATACTAGTTTGTGTACAAGTTAGAAGATAAACCTGTGATAACTGGGTCTCTATCTATCTTTATCA  
ATCACTCCCAGAAGGCTTCCCTTGTGTTTGTCTTTATTGAGAGAAGTGCAAGGAGGGCAGCAGTTCTGTATAGACTGCTG  
AGATTCTAGCAATGGTGAAGCTTTGCCTCATCTCCTATCTTTTATGAAAAAAGAGCTTTGTGATGACCAGGTAGTTC  
TTAATAGCAACTTTTAGCTCATAACATGAACAATTTTAGGTCAAAGAGATATTCATTGAATGTGTGTTTAAATGTTT  
AGCAGACTCTTTTCTTTGGAATATGCTTTGCCTAATGAGTATATTTTTCCAAGTGTGAATTTATCTGTAAAGCAAATTT  
TTTTTAATTATTATACTTTAAGTTCTGGTATACATGTGCAGAACGTGCAGGTTTGTACATAGGTATATACATGCCATG  
GTCGTTGTCTGCACCCATCAACCTGTCTATCTACATTAGGTATTTTGCCTAATGCTGTCTTCCCCCTCCCTACCCGCTSA  
TAGGCCCTGCTGTGTGATGTTCCCCCTCCCTGTGTCCATGTGTTCTCATGTTCAACTCCCCTTATGAGTGAGAACATG  
TGGTGTGTTGTTTTCTGTTGCTGTGTTAGTTTGTGCTGAGAAATGATGGTTTCCAGCTTCATCCATGTCCCTGCAAAGGACG  
TGAACATCATCCCTTTTATGGCTACGTAGTATTCATGGTATATATGTGCCACATTTTCTTAATCCAGTCTATCACTGA  
TGGACATTTGGGTTGGCTCCAAGTCTTAAGCAAAGAGTTTTTAAACCTGTGTATGCATGACATTTTAGCTGTGCTTTT  
GAGACATAGCTATGGTTTCCCATACTAATGCTATTCCAAATCTTTATGGGATTTGAGAAAGAGGAGCTAGCTATTTAA  
GTAACATTTTTTATGGTTATAACTACAGTCAAATCCTTCATCTGTCTGACCTGCAATGATAAAAATCAGCTATTTACTT  
TAAAAGGCCCAAAAGTTATGGACCAAGTGCCAGAAAGTGAGCTGGGAGAAAGAACTCAAATAATATTGAGCATCTACTA  
TGTGCCAGGCTAAATAGAACACTTCTATATTAGGTCATTAATATATATGATAGCCCAATTTACTCAAGAAAATAT  
AACTTTGTAAAGAGGGACAGAAAAATTTTGAACCTCTATTATAAATGTCTACAAATATTCTTAAGGCCCAAGTTTA  
TTTTTTTCAGTAGGTTATAAGATATAATGCTGAGTGAACACAAGCAGTAACCTATGTTCTGTATACCACCTGATGCCAG  
TTTTAAAAATATGTATTCACATACAAGGGTAGAAAAAGGCATAAAAGGAAATTTAACAATATCTGTGGTTATCTTC  
CAGCAGTGGGATTTACATTATTTTCTTTTTTTTGGTATAGCTTTTCTACATTTTCTATAGCATGTACATTTTATAAT

Fig. 6 345

[illegible]

Fig. 6.1346

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TACTAACCTTAGAATATAGTTTTTTCAGTCACTTTCTTGTGCTCTGCTTCTTTCTTCATATCCATTTCTCTCTCTTATT  
GACCCCTTGTCTCCAGCTTAGGGTGGGATTTAAATGACAGTTGAGGCTGCTGTAGATATCTCGGGACCGAAATGGGAAA  
CTTCAGCCCTAGAGAGGACGTTGATTTTTAGTTGGTGTGATGCAGGGGTTGAGTTAATAGTGCTTGACTGGAGCTGCCT  
CCATGATAATGGGACATAGAAAACCTTTAGAGTTGGCACCTCATTCTCTGACACCATACAGCTAGGGCGTAGTATTCTTGG  
GTTCCAGCAGGACAACCCAACTCTGGTTTTGTCCAGAGTCCCTGGATCTTCTCAGAGGTTCCCATTTTCTCTCACTAGA  
CATGTGAGAGTGCAGTTGCCATTTCCAGGTTATCCACTGGCAACACTGGTGTGTGATTTTTTTTTTAAACATACTCTA  
TGGAGAAATTTTTACATAAAAGACAAAATGTAAAGATGATTTTTTTTCTACAGGAACGGGATTTATTAAAAACATTT  
AAAATTCAGTAGATACTTTAATTACATATCTTATGACTCTCGAAGACCATTACCATGCTGATGTGGCCTATCACAACA  
ATATCCATGCTGCAGATGTGTCCAGTCTACTCATGTGCTATTATCTACACCTGCTTTGGAGGTAAATCTGTTTCTGAA  
ATTTCAAGAACACTAACTTGCCACTCATAAAGGTCTATTAACTTTTATCTGAAGGGTTTTCAATGAGAGAAGATAATTG  
GATTCATTGGAAGTATACTTATTGACTTATGGGGGAAAATGCTATAGTTAATAGACAATCAAGTCTTTGATGGATTTT  
GCTTATGAAAGTTGGTACAGATTTAGTGATTGATCTGTTTATGATATTGCTTCTTTGAAATGATCCACTGAACATTTT  
ATAAAGCACATCTGGCTTACTCACTTTTTGTTCATTTGTTTTCTTGAAATCTAGTCTGACGGCTTTTATTATAGGCCA  
AAGAACGATTTTTATAAAACATAAAGCAATATATTTGATTTTTTCTGAAATCTAGTCTGACGGCTTTTATTATAGGCCA  
AAATCCTAAGAAGTTATTTTCAATTAGTTGTTTACTAAAGCAATTTGATTTTTCTTAAGAAATATATTTTATAATTCAGTTT  
GTTTTTCAATTATAAAATTTATGTTAATACCTCATCATATGGGTGAGTGATTCTCACTGGAGATGGTTTCTCTTCCCTTT  
CTTTCCCTCCTGCCACCACCAGGGACATTTGGCAATGTCTGGAGGCATTTTTTGGTTGTCCACAACATACATTTTTTAGT  
TGTACATGATACTGGCATCTTGTGGTAGAGGCCAGGAATCTGCTAAAAATCCTACAATGCACAGGACAGCCTCCAC  
GCAAAGAGTTATTGGGCCCCAAATGTCAATAGTGCTGAAGTTGAGAAACCTGGTTTCGATGAAAGAAAATAATTGCTA  
ATGCTTACTAATTTATGTACATTTTCAAGATATTCTTAGACATCTTAAATATTAGAAAATAAATATTATTTCTT  
TTAAAAATTTTTCAGAGTTTAAAAATAATTTTAAAAATACAGTGAATGGAACATTTGATCATGAGATGTAATAA  
AATTAGATAAAATATTTTCTTCCAAGATTATACTTTAAAGTTTCAAGATATCTAAGACTCTCCCTTGACACATTGTAA  
CACATTTTGAAGCTTCATTTTGTTCATTTAAATCTAGAGATTTCTTATTTGTTTATACTTTTAAATTCATATCAT  
GTAGAATAGTAATATTATCTATATTGTCTGATTTTCCAGGCTGTGTTTACAGATTTGGAGATTCTTGCAGCAATTTTGT  
CCAGTGCAATACATGATGTAGATCATCTCGTGTGTCCAATCAATTTCTGATCAATACAAGTAAGTAACTTTATTTT  
TCAGAACACATTTTCCCTTGTACATTTTAGAATGACTAAGGGTCTTTATAAACTCAGAGTCTTCCAGAGCCATAATGT  
TCTTTTGAGATGTGTATATATGTGTTTTAGTGAAGTTTCAATGTAATTTAACTGAAATATCATTATATCCCT  
TGAGGCATGTGATATTGAAAAATGTGTTCCAGTTCTCTTTAAAGTAATATATGCTGTGTTATAGACAAGGTAAT  
TAAAAATGAAAGTGTGCAGAAAGATTTAGAAAGTTGTATTGGCCCTAAAGTTTAAATTAAGAAAAAGTTATGAGAAT  
TAATGGTAAGTGTTCCTCACTTTATGTAGGTCATCATTTAATCCTCTTCAGAGGCCATAGCTTCCCTTCTCCTCCATG  
CCCAACCCCTGTTCTTCTTTTAAATCTTCTAATAAGGGTAACAGGAACCTTCTAATATTTTCAACCATTGGT  
TTTTTCTCACTGTTAATCATCTCACCTTATAAGAAGTCATCACTGAATTTGGAATATAAGGAATAGTAGAGACTGTTTA  
ATATGGAGCATCTCTGACATTGCCGCACAGAAAGCCTGTGTAGGGAATGTTTAGGTAATGCTTGAGCTATCCCTTGGTA  
AAGAGATTTAGGTTTATAGAAATTTCTATTTGGTACTTGAAGTTAATTTGGTAAGTGATTTAAGTGAACATGACTTAAT  
CCCTCCCATATGGTAGATTATAAATTATGGTAGATTATAAATCATAAATCACTTTTATATATAAAAAATATGCAAAAG  
TTGTTGAAAATGTTGTATGCTTAAGAATCCACCTTTCTTTTCAATTTTGTCTTGAGGCTATGAATAATAGTCTTCTCGTGC  
CTATAGCAATCTAGCTATAGAATTATTTATGAATTCACCATTCATTTCTGTACTTTGCTGTAGCCAGATTTAAAGAAG  
GAATGTAGAGGTAACCTTGCTTTGAGAGATTTAATTCAGAGCTTTAGGATTATTTACCTATTTTATATCTTATAATGG  
CCTCTGGACTATCCTATAGCAAAATATACTCTAATGACTCATCCATGTAGAGGACTGGAAGTCTAGGGATTTCTGAG  
ATGTGTGGTTAGTCAAGTATTTTTTTACAAGTTTAGTTTAGGAACCTTATTTATCCAGATTAGACAGGATAACATTTTCA  
GTTCTACCTACCTATGAGCACCTATAATGAGGTACTTTTAGAATCATCAAGCATACATAAATATTAATATACATT  
GGATGCAGCTCCCTGCATTTACATGGTATCAGTGGGAGGTATCAGTGGGAGGGTTTATTGCTCTTTCTTAAGAAGA  
GCAGGGAGGTCTAGCAATACAGTGCATGCTGGCACTTTACATGAGCCTGGCCTGATTTATTTGATGCTTATGAATGTC  
TTGAGATATTCTGAATTTTATCAATTTTTTAGTAAATACATAAAATGTATTTTACATAAAATTTTTGTGTTAAAGGTAT  
ATATATATATCTATCTTAAACACCAACATTCAAACTGGTATGTTTTCTTTGCTTCTGTTATATAGCATATATATGT  
TCCCTTAGAATTAAGAGTAGATTTAGAAGACAAATTAACAACCTGATAGAAAGGTCACTGTCTTCCAAGTACTCTGAT  
ACATTTTTTAAGGGTAATGAGGACCTGCTCTATTCTTCATTTCTTTGAGCCCTTAAAGCAGCAGTCTCCAATGTTTTT  
GCACCAGGCACAGGTTTTATGGAAGACAATTTTCCATAAAGTGGGGCGCAGGGAGAGAATGGTTTTGGGATGAAAC  
TGTTCCATCTCAGATCATCAGGCATTAGTTAGATTCTCATAAGGAACGCACAACCTAGATCCCTTGCATGAGCAGTTCA  
CAGTAGGGTTTACGCTCCTAGGAGAATCTAATGTCCCTGCTGATCTGACAGGAGGCGGAGCTCAGGCAGTACTGATGCG  
GGCTTGCTGCTGCTCACCTCCTGCTGTGCGAGCCAGTTCTGACAGGCCACGACCGATATTGGTCCACAGCCGATGG  
ATGGATCGGGGACCCCTGCTTTAAAGGGCACTTGGGCTTTGACTGGCACCTGGAGGACCTGGCATCAGGGTCCCTGTG  
CAGTCTGCCATTTAAGCTAACAAGGCCTCAGTCTACAGATGAATCTGATCTCTAAAGTTTGAGAACCAATGAAATAGT  
GGAGGAAACTGAAGAAGATAATTTTATCTCCTTAGGATGTCTGTTTAAAGTCATTTTGTCTGGTGACCTGCCCTGGGATGG  
AAGGATAACTAATCCTGCCGCTGCAAAATCTTTCTTTGTTATTTAGTAATATTGCAATGATCTCCTTTCTGTGTGACCA  
CAGGCACATAGGGAAGTTTACAGTTGCCAGAGTAGATTTGGATTGCTTAAAGTTTTTTTGACCATGAGGTGTGATGAGGC  
TGTGTTATTCTGAGGGAATGAATCAGCATTGTCTTGTACAGGAAAGTATCCAGGGTTGTTCCGGGCCCCAGGGC  
ATTATCAAATACAGCCTTAGTTAGTTTGGTTTGGCTAGGGATCATGTAAGAGAATTATCTCCAGCATGCAGTAAA  
GGAATCCTTCTAATAACTTGTAACTTGTGATATGTAGCTCGTGAAATATTTTATCAAAATTTGTGCTTATTTTTAGT  
TTGCAGTAAACCTTTTTTAAATTTGACTTTTTTATTTTTATGGATGGCTTGAGCATCCATGTGTCAAGCCAGCACATT

Fig. 6. 352

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CTCAGCTCTTGCCTCAGAGCTGGAGCTGCCATCCTGTCCAAAGCCTGCAGCTGAATCCATATTTCTCATAATAAAGAAT  
TCTAAAGACCTCTGATTATCAAATTTATAAACCATAGTTGGTTACTTGTCTTACTTTAAGGAAGCTACGGAAGCACTG  
AGAGCTTAAGGCACATGGGGGGCGCTGGGGATTCCCTTGGCTGGTTCCCAAGGCAGTTAATCCTCCTGCTTCTTACATG  
TGCTCTTCGTTTTTCTTAATTATTTTCAAGTTGTTTTAGCTTTAGGTGCCAAATGATTTTTATACTAATTGTATTTTACACTC  
GTTGAAAGCATGCTGGAGGTTCTGCAAGCAGAGAGAACAAATCTACCTGGTAGAGTTGGTTAAGCTATAATAAATGATT  
TGAGTGTGGGTACTGTGAACAGGATTTAGAGAAATTTGAAATTTTCAGGCAGGAAGCTGCGTAAATATTTTAAAGGATGA  
TGCATATAAATAAATCCATAGGCCAGGTGCAGTGGCTCACTCCTATAATCCAGCACTTTTGGGAGGTCAAGATGGGTGA  
ATCACTGACGTCAGGAGTTCCGAGACCAGCCTGGCCAACAAGGTGAAACCTGTCTTTACAAAAAAATATACAAAAAA  
TTAGCCAGGTGTGGTGGCGCATGCTGTATTCCAGCCACTCAGGTGGCTGAGGCAGGAGAATTGCTTGAACCTGGGAG  
GTAGAGGTTGCAGTGAGCCGAGATCATACCATCACACTCCAGCCTGGACAAGAGTGAACTCCATCTCAAATAAATAAA  
TAAATAAATAAATCCATAAATGTAAATAGCAGCATGAACCTTTTGAATATAAATGCTGGAGGGTATATTTAAGCTTAGC  
TTTATTTTCTGAAAAAAGTATCAAAGTACAGAAATATAGCATTAAATTTTACTTGGCAAATGAATATTTTGTGTAAT  
AGCAAAGATGCCTAAGTTTGGGGCAGAAAGATTTATTCACATTAGTGATGCATTCAAAGCATGCGGTTTTTGGTTTTCCA  
AGAGCAGAGGCATTTTATTATTAAGGTTAAGATGTATCTAGCTAGTATACACTTTTATTCTCTACTTTTAT  
TTTGAATTAATAATTTTCTAGCTACACTAGTAGATTGTATGTAGAATTTTATTTTCTGTATAAACCCACACCTTCAA  
AATAAGGATAAATTCATGTTTATCAAATGTGATTATATAGATATAGCTACAGAGATTATTTTATTCAACAAMAATGTAC  
TGCAAGCCTACTAAATGTTATAATAAATATTATTTTCAGGCACCTTAGGACACATGGSTGGACAAGACAAGACAAATCCCT  
GGCTCTTAAGAGCTGGCATTCTGTCTAGAAAAGGTGGAGCATAATAAGTGAATTTATGGCATGTGATGTTACTAAGTGCT  
ATGGAGGAAAAAATGCAGGCTGAGGGCATAGAGAGTGGAGTGATGAATGAGGCAGTTTCTTGGCAACTGAATATTAA  
GTTAAACCACCACTTCCCTCTGTCAATTTTCATGGAGAAATGTTTCTGAAGTCTTTTGAAGATTTATGTTTATTT  
CAGTTGTAACCTTAGAGACATGGTGTAGCATGCTGTCTAATTTCTAAGCTCAAGGCTAAGCCTAGTAAAGCTGTAAGA  
ACAGTGAGTGTAAGTCTTACTTACAGGATACATATCTATAGTGTCTGCCCCAGTCTTAACTGTTTCAAGCTCCAGCTT  
AATATTGCTCTGATCTGCCATGTGGACTCCATCATAAGACACAAAAAGGCACAATACCTAGTGGACTTAGTTGGATT  
GGGAGGCAATGTATTCTTCTTGTGTGTGTTACTCTGGCCATTACTAAGTGATCTGAAAAGCTGCTAGTTTATAGTG  
GGGCACAGAACAAGAGAGTGTCAAAAACTGCTAGTTTTGAGTGGGGCTCTACAACAGGTCCAGCCTGCTGTGCAAGC  
TGCTCTGCACATGGGCCCATGATCCAGCAGATTTAATGGTGCTTGAATGTGCTAGTGGCAGATAGGAATGTTGTTTGA  
GCCTTTGACAGAGCCCTCTGTGTGAATCACAGCACAGACTCTGGAGCAAGACCCTGCCATCATCCAAAGAAAGATAACT  
AACTACTCTCTTTTGAAGAAAGATATAGGCCTGTCTGTGGCCCTTAGGAGATACCTGACTGACTATGGGCCACCAAGT  
TTCCATGTGGTTTTAAGCTGTCTGCCCATCATTAATAGGATATTATCTAACGCGCCAAGCCATATGTTGGGCATGTACGA  
CATTTCATCATCAAATAAAGTAGTGTAATACAGATCTATCAGGTCCGAGCAGACACTAAAGGCACAAATTACATAAA  
GAAGTGGCCCTAATGCCACTCCTATTAAATTACACTGCCTCTTTCTCCAGCCTACACATGTGGTGGCATGGAAAGTTC  
CCTGCAAGTAGTTGACAGAGGGCCTGGTTTACGGATGGTTCTGCGTGATACGAGGTACCACCGGAAGTATACAGCTGC  
AGCACTACTGCCCTCTCTGGGACATCTCTGAAGGATGGTGGTGAAGGGGAGTCTTTCCAGTGGGAAGAATTTAGGCA  
AGGTGACTCGTTGTTCACTTTGCTTGGAAAGAGGAATGGCCATATGTGCAATTATATACCAGTTCATGGGCCGTAGCCA  
ATGATTTGTCTGGATAGTGAGGGACTTAGAAGGAATATGATGGGAAACTGGTGAGAAAGAAATTTGGGGAAGAGATAT  
GTGAATGATCTCTCTGAATGGACAAAAAGGAATGCTCACCAAAGTGTGACCTTGGCAGAGGAGGATTTTAAATAACCAA  
GTGAATAGGATGACCAATTCTGTAGATACTAGTCAACTTGGTTCCCTAGCCACCCCTGTCTATCACCACCAATGCTAAGA  
ACAAAGTGGCCATGGTGGCAGGGATGGAGGTGGCAGGATGTGCTTAGAAACATGGACTTCCACTCACCAAGGCTGACCT  
GGCTATGACTATTGCTAAGTGCGCAATCCACCAGCAGCATAAACCAACACTGAACCCCATATAACACCATTTTGGGGG  
GATCAGCCAGCTACCTGATGGCTGGTTGATTACATTTGGACCACTTCCATGGTGGAAAGGGTAGCATTTTGCTCTTAGTG  
GAAAAGGCATTTCTCTGGAACAGATGTGCCTTCCCTGCAGTTTTTCTGCCAAACATATGGTATTCATACAGCATTG  
CCTCTAACAGGAACCTCACCTTACTGGCAAAGAAGAGCTGCACTGGGCTCATGCCCATGGAAGTCCCTAGTCTTACCAT  
ATTCCCTAACATCCTGAATCAGCTGGCTTGATAAATTGGTGAATGGCCTTTTGAAGACTCAGTTACTCAGCTAGGAGG  
CAAGACCTTGCAGGGCTGGGGCAAGGTTCTCCAGAAGGCCATAAAGGCCATATATGCTCTGAATCAGCATCCAATATGT  
GGTGCTATTTCTCGCATAACCAGAAATTCATGGGTCCAGGAATCATGGATAGAAATGGGACTGTTACGACTCATAATTA  
CCCCCAGTGACCCACTAGCAAAGTTTGCTTCTGTTCTCTGCAAATTTATGTGCTGCTAGCTAGAGGTCTTAGTTTCAGA  
AGGAGGAATGCTTCTATCAGGAGACACAACAGTGATTCCGTTGAAGTGAAGTGAAGACCTAGCCACTTTGAGCTCCTT  
ATGCATCTGATTCAATCATCCAAGAAGGCATTACAGTGTTGACTGGGGTGAAGTGAAGTGAAGACCTAGCCACTTTGAGCTCCTT  
GGTTACTACTCCACAATGAAGGTAAGGAAGAGTATGTTGGAATAAGGAGATCCCTTAGGGCATCCCTTAGTATTAACC  
ATGCCCTGTAATTAAGGTGAGCACAATAAACCATCCAGGCAGGACCACTAATAACCCATACCCCTCAGCAATGAAG  
GTTTCGGTCACCCCACCAGGTAAAGAATCATGACCAGCTGAGGTGCTTGTGAGGGGAAAGGGAATACAGAATGAGTAG  
TAAAGAAGGTAATTACAAATACCAGCTATGACCATATGACCACTTATAGAAATAAGGACTATAATTGTGATGAGTATT  
TTCTTATGAATGCATTTATATGTATATATACATATTAAGCATATATCTTCATTTCTTTTCTTATTCCCTTATATA  
ACATAAGAGGTATTAACCTTATCTTCAATTTCTTTTCTTATTCCTTATATAACATAAGAGGTATTAACCTTATATTAG  
TATTTAAGTATTTTATTTTATATCATAGTATTTAAGTTATAGGCTATCAGGATAAGAGTAAACATTACTCAAAAACTTTA  
CTTTCACCTTCTGGGGAATGTGTTAGTGTGCTTTTGTGTATGATGAGGATAGTTGTAGCCTGTTTGGTGAATATGGCC  
TTATGGAGATTAAATATGGTTAAAGGAGATGCTTATGGGTACCAGGGTGACAAGGGGCAGAAATTTGTAATGGTTAATTT  
TATGTGTGCTGACTTAGGCTAAGGGATGCCAGATAGCTGGTAAACACTATTTTGGGGTGGCTCTGTGAGAGTGT  
CCTGGAAGAGATTAGATTAGCATTTGAATTTGTAGACTGATTAAAGAAGATTGCCCTTACCATTGTTGGCAGGGATCAG  
TCAATCCATTGAGGACCTCAAAGAGAAGAACAAAAACATTGGGGGAAGGGGCAATTTTGTCTTCTCGAGCCTGGAC

Fig. 6. 348

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ATACATATTCTCCTGCCTCTAACATCAGGGTTCTCGTTGATTCTCTGGCCTTTGGACTTGCTTTCTCGTTTCACCTTT  
GCAGACATGGGACTTCTTGGACTCCATAATTGCCTGAGCCAATTCCCTATAATAAATAAATGTGTCTTTTCTCACATAC  
ACACACACACTCATACATATGTCTATTCTATTTCTCTGGAGAACCATGATTAATACAGAGAGAGAAAAGATTAGCACAG  
ATGAAGTACATGTTCTCAGTTATGTGGTAGTACCTGCCACCCTTCCCCCATTTTCATTAGCACTCAGAAGAGAGGGAC  
ACAAAAGTGGTCTTCTGCCTTCAGTAGTAGCATATGTTGGGCATAATTTAATTTATTCTTGATGATCCAGGGTAGTTG  
TAACAAATGAGCACAATTGATCTATATAATAAAATGATGGCTTTGAGTTTGTAAAGGTATGCATGGCCTCTCAATAA  
AAAATAAATACTTACAAAGTTGTCTTTATAAAATGTGTGCCAGGCACCTGAGTGGACTGTGTGATTTCCTGGTTCATGTT  
TAGTGTTCAGGTTCTCAGGTTTTACCTCTATAAGGTACTTGTAAATCAATAGTCAAGTAAAGGTAGGGCTCTAGAACTG  
CCTGGTTTTAAGTGTGGCCCCAGCACTTACTGGCTAGGTGATGTTGGCAAAGTTACCTACCTTCTCTGAGGTACATTT  
TCTTCATTTGTACAGGATTATATGAGTATGTCTATGTAAATATTTATGTGTATAAAAGATGTCCCCAAGGGACATTTTC  
TATCCCCCAGCTATCCCAAGGACACAAAGACTTACTTCCCACCTATATGGCTCCATGCCATCCATGAATGGAACATAG  
CCTTAAATGTGATAACAACAGTATCTTCTTAAAGAGTTATGAGGATTAAATGAGATGATTACATAAAACCATTTAA  
CACAATGGCACCTAAATCCTCTAAATGTTGTGCCTTGCTGTATTCCTGTTTGTACTTTGTAAAGTTTGAATAATTGAAG  
TGCCTAGGGGAAGCCAGATAACCAACATATTAAATTAATAACCTTAAATATTTTGTAGGGGCTTAAAGTCTCTAAGTAG  
GTTGGGAGGTTTGGGGAGGAACGATTAAAGATTTGTAGAGATAAAGACAAAAAGGTAGCAATGCCATAGCTCTAA  
TGGGTGGTACAAAGTAGTATAGAAGTTTACAGGAGAAAGTGGGCAGTTTCATCTGGTAATTAAGAAAGACTTGATGGAA  
GAGGTAACCTTATATTGGGCTTGAAGATGAAAGGGTTTCAACAAAAATGTTATATAAGCTAACCTCTTGGCCCTCTGTG  
CTGTGCACTGTACCATCCTGACAGCAACTTTCTGATCATTCTGAACTTCAAGGACTCTACTTACAAGTAATGGATTA  
GTGTCTTTGATGAAAATCTGCTGAGGAGCTGCAGACTCCTACCTCCAATTTAAATGTGACCATATGCCTTCAGTCCTA  
AAGAAGAGTAGAAAGTTAAATAACTTCTTGAGATTGAGTTTCTTAAATGCTAACATTTGTTTCAATTTAAAAATCAACAG  
TCACCACCACTTCTCTGTACAGCATCTGAGATGGAAGAGGCTATGGAGGCTGCCAGTCCACTAAGGCATCCTTTCTCT  
GGCTTTTCTAGCCAATCTGGACTCTTTAAGTGTGAGAGATAAACCACCTCTCCAAGACAGGCTTGCAGTATTCTTGG  
CATCTGCCCTACATGAAAGGCCCTACTTATATCCAGTAGAACTCAGACTCTTTGTGACCTTCCATACAACAGATCAC  
CCTTTTCTTGAAGGAAGAGCTCATCATCTTATTCTTTTGCAGGGTCAACAGCCTTAATTTCTTTCACCTTCAGCTTCA  
TATAAGCCAATTAGGGTTTTTGTAAAGCTAAGTCAATCTGTTAACTGCTTGTCTACATGCATATTTCTTCTCTTAA  
ACGAACCTTAATAATTATCCAGTATCTAATAATTATGCCTTCTTTCAATATATGTTTGTATTTGATTCCACTGTAG  
AAATACAATAATATGTGCTAAGAACCTATATAGTTTAAATTTTTCATTTCTATATGCTTACCTATCTGTAGATAAAGG  
TTCATAAAGGCATTTATAGACACTATAAAAGTTCACCAAGAACTGCCTTTTAAAGATAAAGACTATTGTTTTATCTAA  
AGAAAACAAAAAATAACAAAAAATACTGTACAAACCTACTCCTACTAGTCTAAACAGCTGTGCTCCTGTAGTTTGGG  
AGCAGAAATTTAAGTGTGCAAAATTTGTATTTCTATAGTTCCGATAAAATAATAGAATTTCTCAGTTGAAAATGTCTTAA  
GCCTCTCTCTCTCTCTCTCTAGCTCCATTAAATAGCCATTGAATAGTATTGGGTATTTCTTTCTTAAAAAAGATATATA  
TTTCCAAATATATTTTCTATGCATTCTGTTATATATTTTCTATGCATTCTGTTAGAAAAAGATCAAAATACCTGTGCTTTT  
AACCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTT  
TAATGGCTCACTGCAGCCTTGAACCTCTGGGCTCAAGCAATCCTCCTACCTCAGCATCCCAAGTAGCTGGGACTACAGG  
CAGCCCTACCATCCCGAGATAATTTTTTATTTTCTGAGATGAGGTCTCCCTATGTTGACCAGGCTGGTCTTGTGAAC  
TCCTGGGCTTAAGCAATCCTCTGCCTCGGATTTGCTTTTAGTCTTTACAGTGATTAAAGTGAAGAGATAAAGCATC  
AAAAGTTTTTAAATGATTATCTTGTAGCTCTGGGTCTGCTATTTACAAGAAGTAGGAGAGAGGAGCAATCTCTCCCTGC  
CTAAATTCACAGGTCTAGGGCAGTAGGGAGAGAGTGGCAGAATCTTACCAGAGGGTATACAGACAGCCAAACACAAC  
ATCACTGTGAAGCTGTGAGCAAGCAGGCAGGAAGAGCAATATCCCTGTACAGTATACAATGACTGCCACGATACTTGA  
AAAGAAAATGGAAGCAATGAATAAAGCTTGGACTTTCAGAGCTATACATGAGCAAAATGAGCAAAATCTAACTTTGTTCA  
TATGATTCTTATTGTTCTTGTACCCTCTTTGAGTACAAACAATCCTGTAAACAGGATCCTCACTTTATATAGTGCAG  
GGTAGGTAATTCACAGTTATCAGGAATACAAAACCTTATGCTCTGGATGTGTTATAGATACTAAGAATAATGTCTATTT  
CTGCTGAGCTCATGGCACTCTAGAGGAGAGGTTAAAGATCCAATCTTTCACTTTAGAGAAAGCTGAGACCTACAGAG  
TGAAATGACCTGCCACATGTTAGTAGCATTAGAATCACTCCCCAAGATTCAATCCAGTGTGTTTCTGCTCTTATGTT  
ATCTGATTTATTCTCTCTGATATTGTGAGGTAATGATAAGGGCAGCAGAGAAGTTAGGGGAAATTACATCTTAAAT  
CCAGAATTTTAAAGATCAGATAAATCTCTCAAAACAGTTTGTGCTGATCTTTGGCCTTTTGTCTTTTTTACAGACTCTG  
AACTTGCCTTGATGTACAATGATTCTCTCAGTCTTAGAGAACCATCATTTGGCTGTGGGCTTTAAATTTGCTTCAAGGA  
AACTGTGACATTTTCCAGAATTTGACCAAAAAACAAGACAATCTTTAAGGAAAATGGTCATTGACATCGTAAGTAGC  
TGATAAAAGCCAAAGAAGAGAAGTGTGATGCAAGTTGTTTATAATTTAGACATAAGAACAAGATGAGTATTAGGTAAAA  
GGAAGTGCATTTTCAAAACATATTATGGCCCTTTATGTTATAGAAGCTGCCCGTGATGCTGGCTGTGATGTTCTGTAAATA  
GGTTTTTCACTTCTAGCAGTTTGGACTTGAGAATAATGTGAGCTCACCTCATCATTTATTTTCTGGGCCCCCTCCAGTC  
TGGTGGCGGGCAGAGAAAAATGACTAACAAAAGCAGATTGTGTGGGCCACAGCTCAATGGATTTTTTCCCCACCTTTT  
CTCATCAGTAGACAGTGCCATTTAGACATCCATGACTTACTCTTTTTTCTATGCATCTTATTCACTGATTATGAGACA  
CAGGAAAATCTCTAGCTTTCAAAAACCTTATAAATCTGTGATGATGCTTATCCATGGAGATGTACCCCATTTTTCACCA  
TGAAAGTGGTTGTGCTGCTAGCATTCTGTATATTACACACATTTATCTGGGCTTTGGGAAAACCTTGATAGCAAAGG  
GGAAGAGACTCTGCCCCCAAGGAGTAGTAAGGATTTTCCACTGCTATTAAAGGCATAGTGTGTTTTATTCCTTTTTC  
ATTCTTATATTCTGCGTAATATTATTTCTATGTGTAATCTGTTTTCTCTGAACTTAATAATACTCTATATTTTAAAGGT  
ACTTGCAACAGATATGTCAAAACACATGAATCTACTGGCTGATTGTAAGACTATGGTTGAAACTAAGAAAGTGACAAGC  
TCTGGAGTTCTTCTTCTGTATAATTATCCGATAGGATTAGGTAAGCCTTGTGTTGAGTTTGTCTGTGTGTGTGTGT  
CTGTGCACATGTGCACATGTCTGCGTGTTCAGCTTTGATAAGATGTATTTCTTCTCTTCCCACCTTATACTTTCAGCA

Fig. 6. 349



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ATTGTAGGCAGGATTTTTATCCAAATTTTTATTCTGAGAATTAACCAGGTAAAATTCTACTGGTCTTTCTGTTTGCAT  
CTACATTAATTAACAAAACTAACAACAAACACCCACAGAACAGCCACTTAAGCAGCTC. ATCTAGTCAGCCATG  
CACATAAACAGTTTCTCTTAAGCTATTTAGATGCAGTAGAAGTGGCATAATTTGGAACATTAATACAAGTGTGAACCTA  
TACACAGACACATCATGGTTGAGCTGTTTGAATAAAATCTTACACTACGTGTATTTTAAAGTGTGTCAGTCATCCAATG  
TGAATTTCTAGTTTTTTTTTTGTTTTTTTTTTTAAAAAAGGAACAGGAGTGAATAGAGAATGCATCCATCTATTTTAGG  
TTCTTCAGAATATGGTGCAGTGTGCAGATCTGAGCAACCCAAAGCCTCTCCAGCTGTACCGCCAGTGGACGGACCG  
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AGTATTTATGATCCAAAGAACTTTTCAATCTTATGACTTACATTCATATAGTCATATATATATCTAAAGACATATTCAT  
TTATTATGACTATATTCATTTAATATATTCATATACATAGAGCACATGGCATTATTTTCACTTATCTGGATTACCTTACA  
AATGGTGTATGTAAAAATAAGCCCTACCATGTCAACAACTGGAAAAATTTTATGCTATAGAATGCCTTTTAAACCA  
AGGTTCTAGAAGCTAATTTTGACCACTAGTAGCAATCTTCAATTTTAAATGGTCTGTTGTTGTTGAAAAATAGTGACAA  
TTTTACCAAACTAAGTTTAGTAGTCTTCTGTTTCACTGTTTTATTTGTTGGGCCATGATCTAATTAAGCTTTTCCATTGTT  
TCTTAGTCCCAAGTCTCTACTCATACTGGATTTTTTCTTAACTAGGTGGGCTTCATAGACTATATTTGTTTATCCCTT  
CTGGGAGACATGGGCAGACCTCGTCCACCCTGACGCCAGGATATTTTGGACACTTTGGAGGACAATCGTGAATGGTAC  
CAGAGCACAAATCCCTCAGAGCCCTCTCCTGCACTGATGACCCAGAGGAGGGCCGGCAGGGTCAAACAGAGAAATTC  
AGTTTGAACCTAATTTAGAGGAAGATGGTGAAGTGCAGACAGGAAAGGACAGTGGCAGTCAAGTGGAAAGACACTAG  
CTGCAGTGAATCCAAAGACTCTTTGTACTCAAGCTCAGACTCAGAGTCTACTGAAATTTCCCTTGATGAACAGGTTGAAGAGGAG  
GCAGTAGGGGAAGAAGAGGAAAGCCAGCCTGAAGCCTGTGTCTAGATGATCGTTCTCTGACACGTAAACAGTGCAAAA  
ACTTTTATGCTTTTTTTTTTTTTTAAAGTAGAAAAATGTTTCCAAAGTGCATGTCACTACACCAACCCAGGTCACACT  
CACTGTCTATCTGCCAGGACGTTTGTGTAACAAAATGACCTTGACTACTCAGTCCAGCGCTCAGGAATATCGTAACCAG  
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CTGACAAAGCAGATAAAATCTACTCAAATTTATTTTCAAGAGAGTGTGACTCATCAGGCAGCCCAAAGTTTATTGGAC  
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GCAACAAATATGTCAGAACAGGACATAGCAGCAATCTGTTACCAGTAGGAGGAGGATGAGCCACAGAAATTTGCATAAT  
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AAAAATCTAATTTATGAATTTTACTTGACCTTATAGTTCATAGCAATTAAGTATTTGTAGTATTCACTGTTTGTGTT  
TATATACCAATGACTTCCATATTTTAAAGAGAAAAACAACCTTTATGTTGACAGAAACCTTTTGTAAAGTCTTTATTA  
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GCTCTAATAATCCACACATTTTATGCTCATTTTTATTGTTTTTACAGCCAGTTATAGTAAGAAAAAGGTTTTTCCCTT  
GTGCTGCTTTTATAATTTAGCGTGTGTCTGAACCTTATCCATGTTTGTAGATGAGGTCTTGTCAAATATATCACTACCA  
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ACCAATAACAATAATCCTATTTGGTTTAAATGATTTCACCATGGGATTAAGAACTATATCAGGAACATCCCTGAGAAAC  
GGTTTTAAGTGTAGCAACTACTCTTCTTAAATGGACAGCCACATACGTGTAGGAAGTCTTTTATCACTTATCTCTGAT  
CCATAAGCATATCTTGACAGAGGGGAACACTTCTTTAAACACATGGAGGGAAGAAGATGATGCCACTGGCACCAGAGG  
GTTAGTACTGTGATGCATCCTAAARTATTTATATATTGGTAAAAATCTGGTTAAATAAAAAAATTAGAGATCACTCTT  
GGCTGATTTTCAGCACCAGGAACGTATTACAGTTTTAGAGATTAAATCCTAGTGTTTACCTGATTATAGCAGTTGGCAT  
CATGGGGCATTTAATCTGACTTTATCCCCACGTGACCTTAATAAGTCTTCTTTACCTTCTATGAAGACTTTAAA  
GCCCAAATAATCATTTTTTACATTTGATATTTCAAGAAATGAGATAGATAGAAGCCAAAGTGGGTATCTGACAAGTGGAAA  
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CCACTAATGGACAATCAAATTCAGAAAAAGGCTCAATATCCAGAGACAGGACTAATGCAGTGTACAATCTGCTTATC  
CTTGCCCTTCTCTCTTGCCAAAGTGTGCTTCAGAAATATATACTGCTTTAAAAAAGAATAAAAGAAATATCTTTTACAA  
GTGGCTTTTACATTTCTTAAATGCCATAAGAAAAATGCAATATCTGGGTACTGTATGGGGAAAAAATGTCCAAGTTTGT  
GTAAACCAAGTGCATTTTCACTGTGCAAGTTACTGAACACAATAATGCTGTTTTAATTTTGTGTTTTATATCAGTTAAAT  
CACAATAATGTAGATAGAACAATTTACAGACAAGGAAAGAAAAAATTTGAATGAATGGATTTTACAGAAAGCTTTATG  
ATAATTTTGAATGCATTATTTATTTTTTGTGCCATGCATTTTTTTTCTCACCAAATGACCTTACCTGTAATACAGTCT

Fig. 6.350



[illegible]

Fig. 6.351

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CTCCAGATTGACTGGGGAACCTGGAGTTAAAGAGCCCTGACCCCTAAAAAATTATAGAAAATGAAAGAAGCTGTCAA  
GAAAGTAAGGAGCAGAGATAAGAGCAGAGATGGGAGYGTGCTCTGCCCGGCAGAGACTCACAACATGAGGCAAGACAG  
ATCTTAGCTGAACCTTCTTGAGGATGTATGCCTCAATGAAAGGAATGGAGCACGGGCAGCATCCGGCTTAGGCTGGAGC  
CCCTTCAACCATCATGGCTGTTTTAGCAGGGTGTTCGAGCTGCTTACAAATCCCAAGCCACAGACATGGTTTCAGG  
ACCTGAATCATGCAAAACATATTTCTGAAAGGTTCTATCACCTGAGAATTGCTTTTCTTCGCTCCTTGTTCAGG  
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CTGTTTCTGCTATTAGTTACAGCATCTGGGAAGAGAGTGGCAGAGAACGCCAGGCAACTGCACCCTGCCACAGTGGG  
TCAAGCGGAGGCTGGGTGGTGACACCCGTCTCTACCCAGCAGAAGTCACTGGTTCATGGGTGGAGAACAAGCTCAGGA  
CAGCTGCTGCAGTCCAGGGAACGTGCCACCATAGAAGACTCTTGGGAAGCAGCCCTGACCCCAACCCCTGTGCTTTT  
TGAAGCCGTGTCTGGTATCACATGGAATTATGCAGTAGTCATAGAATATCTTTGAAAACCTTATTTCTAAAAATAATTG  
CTGAGATCAGCGATTAAATATCTAATAAATGGACTGGAAGGTTGAAAAAAGCAAGGAGGAGAGAAAACAATTGAGG  
AAAACTGGGAGAAAGTGAAGGAAGTTGGACCCTTTGTACTACAGCATCCAAGGACAGTGATGATATCTTCTGTTCCCA  
CAGGACCCAGGTTCTGGGTGCTTAACTGAACACATAAGGCCCTTAAGGATCTAATCAAACCTAAATCATCCCACTCC  
TCCCACAGCTCATCCCTCTTGATCCAGTTTAAATACACCTTTGTCTGGAAAGCCTTTCCATTAGTATTTTATACAAA  
CCCTATAATAAATATTTCCCTAATATGTTGATTTTTTAAAAAATTCTTCTCTCACTAGATTGTGAGATTTTAAAT  
TTTTATTTTTTTAGACAGTCTCACTCTGTACCTAGGCTGAAATACAGTGGCGCAATGTTGGCTCACTGCAATCTCTGC  
CTCCTGAGTTCAAGTGATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGATTACAGGCATGCATCACCACGTCCAGCTAA  
TTTTTGTAAATTTTTTAGTAGAGATGGGGTTTCGTATGTTGGCCAGGCTGGTCTCGAATCTGACCTCAGGTGATCCCG  
CCACCTTGGCTACCAAAGTGCTAGGATTACAGGCGTGAGCACCAGCTGGCCTAGATGTCGAATTTTAAACATC  
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CTCTTCTCAAAATGTGGTCTTGAGCTGACATTAACGTCAACTAGGATCTTGTTAGATTATAATCTAGCCCCAGACCAA  
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TAAAGTTTGAGAAACACTGTTCAAGACATCATGGAGGTGTTTTCTATTCTGTTTTTTTTTAAAGAAGCAAGTTAATAAT  
CTCAACCACCTTTCTAATGTATTTCAATTAATCAAAGGGATACTTGTGTGCTACAGGAGTTACAACAGATGACCTAGTGA  
GGGCCACAGGCAGTCTGAGGAACAGTAGGATCCCATGTTTGGCCAATGTCTATCAAGCAAGAAAGGAATAGTGAAGCCA  
GCTATTAGCTCCCTTCAGCAGAGGAACCTGGGATTAGGAGTCGCCATCAGGCATCATGGCATCAAGCAGGCATGGG  
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CCTCACCCCTACTACCCAAAGGCATGTACTTTCCCAATAAAGCTCTGTCACTCTGATCCCTCCCTCAGACTGTTTCCAGG  
GATGCTGAGCACCCCTGTACATTACAGAAAGCAGATGTCAAATTTCTGTATATATATTGGAGTGCCTAAGTATTTAAAA  
TCAACCTTTGGCTATTAGAGGTAGGGACTGTGCCTTATGCATCATTGTTTTTCCAGGGCTTAGTTCAGTGTCTGCCATA  
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AGGCAGCTGAAAAGAAATATGGAACAGGAATACAAGTTGAAGGAATCAGGCATTCTCCCTAGAAACAAAGGTACGGGAA  
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ATTAGGTTAGGACAGGCTTGCCGTGCTGCAATAGTAGACAGTGAGACACAGGTTGACTTCTGGGAAAATATCCCAACT  
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TTATCTTGAGGCCACGAAAGGAATATCTGAATACACAGACAACATACTGAAAATGGCAAAGCAGAAGTTAGATAGCAC  
ATGAGTCTTTGAAGATGTGTTGAGCTGCTGAACATAACAGCCCTACTTTGAAACTTATTAAGATAATAACTAGTTATT  
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CGTTATAAAGGAATACCTGATGCTGGGTAAATTTATAAAGAAAGGAGGTTTATTTGGCTCAGAGTTCTTTCAGGCTGTACA  
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GCTGGCGTATCACATAGTGGGAGGAGGTGGCAAGTAGGCAGGAGGAGGTGCCATGCTGTTAAACAACAGCTCCTTCA  
TGAATAGAGTGAAAACCTTATACATTACTGCAAGGACAGCACCAGTGGATCATGAAGGATCGTGACCCAAACACTTCCC  
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TTGGAATTTGACCCCAAAATTAGCTGGGTGACCTTAGGCATGTTAATTCATCTCTACTTTCTTTTCAATTTAAATAGGGG  
AATTATAATATTGGAATCTTCTCTACATCTTTCAGAGTATTAGAGCAAAATGAATTTAATGTAAGTAACTCAGTGTAAAC  
TTTAGATAAAATTTTTTCAACACTAAGCTTTGTGACCCAGAGTAGATAATAAGTCAAAAGATGGTTGCCATGAGCACTA  
ACCGTGAATTAATAATAGAAATAGAGAATATCACTGTGTGCTGCACATAAGTTTCAATTTCTGAAATGCTTCATTTACAT  
GCATGCATGGGTGCACTTGTGTGCTTGACACACATGCAATGTTGCCAAGTAACTATTTTTTAAAGCATACGAAGCA

Fig. 6.352

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TGGATTTAGAACAAAGTCAACACCAGAGACAACCTAGAGGAACCTAAGTCTCTCACCACCCCCACCCCTGCCAATTTAC  
CTGTTCATCCATGATTCAAAAATGGTTTCTAAAGGGAATAAAAATGATTCAAAAGGGAGACCTAATGAGTAACATAAT  
AGGGAGCCATTGATTGTTTTAGAGTGGTATGACGGAGCAGTGGGTAAGTAGATCACTCAACACTGGTATTTGAGACTGC  
CAAGAGAGGAGAAAAACAGACACAAAGTGATTTCTGGGCTTTTACAACTTTTTTTTTCTCAAAGTAGATTGACAAATATT  
ATGTGTCATCTTATATATATTAAATAGACAAAGGCAATATCTACACTTGGGAATACTTCATGGAAGGCTTGGCTGGAAAC  
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GTGCTGCATAGATATGTAAGCCACTCATTCTTGTGCAATTACCTATTGTAGAATTTTCAGACTAATATATTCTCTTTTC  
CTTGTTTTGATCCTCTGCTGAATCATGAGAATAGTTCTCAGGTGAACAGCAGTGATGTACAGTGTCTCACTGGAAAAAGC  
AGGAAAATAATCAGATGTACCCCAAGAACCTTAGGATATGGGAGGCTCTTCTACTGGCCACTCCATGGGAAACTCGCTTG  
CTTTGGGGGACAGTTTGCTTTGCTCTATTTTGTGGGCACAGGGTTTTGCCTTATTTTTCTACTCCCTTATTCCCAGCAA  
ACATCCTAAAAAGATGTGGGTAAAAGAAAAAGAGAATAAATTTTGAATTTCTACTCACTGGCTAGAAACAGACAGAGAC  
ACATGAGTAGAGGCGGAGTTTACCATCACCTTAATCATCCTGGGGCCCATGTGTGTATAAAAGGCAAGAAAGAGCCA  
TTACCAGGAGGCACTCACCTTCACAGTTTCCACCGCATAATTCACCCCTCTGTATCAAACCTACCCAAATTGCTACACC  
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AGAGTAGGACTTGATTCTTCTTTTGGAGAGTTTCACTTTGGTTGGAAAGGAATGGGGGAGGGGCCAAGTACAGTGGC  
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CGGGAGGATGAGGTGGGAGAATCACTTGAGCCAGGAGGTGAGGCTACAGTGAGCTGTGAACATGCTTCTGTGCTCCA  
GTCTGGACTACAGAGCAAGACTCTGCCTCAGATAATAAAAAAATAAAAAAGGAAAAAAGAAATGGGGAATGGA  
AGAGGAAGGAATCCAGGGGAAGAATGATCACTAAGACTGCATCAACCTTTTGTCTATCTCACTTTCAACTCATCAAC  
CCAATATTCCCTTCATTTAACAGAGAGGTCAAAAGAGGCTGGAAGGATAAGGTTGTCCAGTAAAAATGTCAAGGCTGAT  
ATGGGAACATAGCCAGTTTGTCTCTAAAGTGCCCTGTGTCCCTTGGGGAAGAGAATATTTAACTTGATTGTTGCTTCAG  
TTTTTTATTCTATGTACAGCTATCAGTTTGAAGGCATTATTTAGGGGATTTCTTTTACTTTCTTTTTTTTTTAAATCTCA  
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TTTTTGCACTGACTGTAGTCCCTCACTGGAACAGCTTTATTTCCCTAAATAATATACAATGAACCTTGTTTCATATCGAA  
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GCAACCCACAGACCAGGAAGTTCCCTTGGGTGACTTGCCACCAGGGCCCTGGGTATCAAGCACAAAACCTGTCTCTAATAAAAAATA  
TTTGGGCAGACACCAGCTAGCTGCAAGAGTATTTTTATACCCAGTGGCACCTGGAATGCCAGCGAGACAGAACAGT  
TCATTTCCCTTGAAAGGGGGCTGAAGCCAGGGATCCAAGTGGTCTAGCTCAGCGGACCCCAACCCACAGAGCCAGCA  
AGCTAAGATTCACTGGCTTGAAATTCTCACTGCCACCACAGCAGTCTGAAGTCAACCTGGGGCACTCGGGCTTGGTGGG  
GGGAGGGGTGTCTGCCATTACTGAAGCTTGAGTAGACTGTTTTCCCTCAAGTGTAAACAAAGCCAAGGGGAAGTTCC  
AACTTGGTGGATCCCTCCGCAGCTCAGCAAAGCCATTGAAGCCAGACTGCCTCTCTAGATTGCTCCTCTCTGAGCAGGA  
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AGGACAGCGTTCAAGCTCTGTAAAGGTCAGACTGCCTCTCAAGTGGTCCCTAACCCCATTTGTAGCCTGACTGGGA  
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GGTTAGATGAATTGCTAACTGGAATAACCAAGTTTAAAGAGAACAATAATGACCTGATGGAGCTGAAAAACACAGCATG  
GGAACCTTTGTGAAGCATATGCAAGTATCAATAGCCAAATAGATCAAACCAAGAAAGGATATCAGAGATTGAAGATCAA  
CTTACTGAAATAAAGCATGAAGACAAGATTAGAGAAAAAGAAAGGAAGGAAACAAAGCCTCCAAGAAATATGAGACTA  
TGCGAAAAGAACAACCTACATTTGACTGGTGTACCTAAAGTGATGGGGAGAATGGAACCAAAAGTTGGAACCACTC  
TTCAGGATATTATCCAAGAGAACTTCACAACCTAGCAAGTCAGGCCAACATTCAAATTCAGGAAATTCAGAGAACACC  
ACAAAGATACTCCTTGAGAAGAGCAACCCTAAGACACATAATCGTCACATTACCAATGTTGAAATGAAGAAAAAATG  
TTAAGGGCAACCCAGAGAGAAGGTTAGGTTACCCACAAAGGAAAGGCCATCAGACTAACAGTGGATCTCTCTGCAGAAA  
CCCTACAAGACAGAAGAGAGTGGGGGCCAATATTCAACTTTCTTAAAGAAAAGAAATTTTCAACCCAGAATTTTCATATCC  
AGCCAAACTAAGCTTCAAAAGTGAAGAAGAAATAAATCCTTTACAGACAAGCAAATGCTGAGAGATTTTGTCCACCACC

Fig. 6.353

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AGGCTTGCCTTACAAGAGCTCCTAAAGGAAGCACTAAACATGGAAAGGAAAAACCAGTACCAGCCACTGCAAAAAACATA  
CCAAATTGTAAAGACCATCAACACTATGAAGAACTTCATCAACAGGCAAAATAACCAGTAGCATCATAATGACAGAA  
TCAAATTCACACATAACAATATTAACCTTACATGTAAATGGACTAAATGCCCAATTAAAAAGAAACAGACTGGCAAAAT  
AGATAGAGTCAAGAAGCAACGGTGTGTCTGATTTCAGGAGACCGATCTCACGTGCAAAGACACACATAGACTCAAAATAA  
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TTTAAACCAACAAAGATCAAAAAAGACAAAGAAGGGCTTTACATAATGGTAAAGGGATTGATGCAACAAAAAGAGCTAA  
CTATGCTTAACCTCTCCTAAATATATATGTCACCCCAATACAGGACCACCCAGATTCAAAGGCAAGTTATTAGAGACCCACA  
AAGAGACTTCAACTCCCATACAATAATAGTGGGAGACTTTAACGACCCACTGTCAATATTAGACAGATCAATGGGACAG  
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CCAAATTCATAGAATATACATTCTTCTCAGCACCACATCACACTTATYCTAAAATTGACCAACAGAATTGGAAGTAAAA  
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CAGAACTGAAGTAAACGGAGACACGAAAAATCCTTCAAAAAAATAATCAATGAACCCACGAGCTGGTTTTTTGAAAA  
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AGAAAATCTAAAAAGAAATGGATAAATCCTGGACACATACATACCCCTCCCAAATCTAAATCAGGAAGAAGTTGAATC  
CCTGAAGAGACCAATAACAAGTTCTGAAATTGAGACAGCAATTAATAGCCTACCAACCAGAAAAAGTCCAGGACCAAA  
AGATTCAACAACAGAATCTTACTTGAGGTACAAGCTGGTACCTTCTCTGAACTTCTTCAAACTATAGAAAAAG  
AGGGACTCCTACCTAATCAATTTATGAGGCCAGCATCTTCTGTATACCACAACCTGGCAGAGACACACACACACAC  
AAAAGAAAATTTCAGGCCAATATCCCTGGTGAACATTGATGCGAAAACTCTCAATAAAATACTGGCAAACCAATCCAG  
CAGCACATCAAAAACCTTATCCACCATGATCAAGTAGGCTTCATCTCTGGGATGCAAGGCTAGTTCAACATATGCAAT  
CAATAAACATAATCCATCATATAAACAGAACCAATGACAAAAACCGCATGATTATCTCAACAGATGCAGAAAAAGCCTT  
CGATAAAATTCAAACACCCCTTCACGCTAAAACTCTCAATAAACTAGGTATTGATGGAAGGTATCTCAAAATAATAAGA  
GCTATTTATGACAAACCCACAGCCAATGTCATACTGAATGGGCAAAAGCTGGAAGCTTTCCCTTTGAAAACCAAGACAA  
GACAAGGATACCCCTCTCTCTCTATTCTTATTCACACAGTATTGGAAGTTCTGGCCAGGCAATCAGGCAAGAGAAAAGA  
AATAAAGGTATTTCAGATAGGAAGAGAGGAAGTCATATTGTCTCTGTTTGCAGATGACATGATTGTATATTAGAAAA  
TCATCATCTCAGCCCAAAATCTCCTTAAGCTGATAAGCAACTTCAGCAAAGTCTCAGGATACAAAATCAATGTGCAAAA  
ATCACAACATCCCTATACACAGTAACAGACAAACAGCCAAATCATGTGTGAACCTCTCATTATAATTGTCTACGAAGA  
GAATAAAATACCTAGGAATACAACCTTACAAGGATGTGAAGGACCTCCTCAAGGAGAACTACAAACCACTGCTCAAGGA  
AATAAGAGAGGACACAAATGGAAGAGCATTCCATRCTCATGGATAGGACGAATCAATATCATGAAAATGGCAAAATGGC  
CATACTGCCCAAAGTTATTTATAGATTCAATGCTATCCCATCAAGCTACCGTTGACTTTCTTCACAGAATTAGAAAA  
ACTACTTTTAAACCTTCATATGGAACCAAAAAAGAGTCTGTATAGCCAAGAAAATCCTAAGCAAAAAAATTAAGCTGGA  
GGCATCACATTACCTGACTTCAAACCTATACATAAGGCTACAGTAACAAATATAGCATGATACTGGTACCAAAACAGAG  
ATATAGACCAATGGAACAGAACAGAGGCCTCAGAAATCACACCACCCATCTACAACCATCTGATCTTTCACAAACCTGA  
GAAAAACAAGCAATGGGGAAAGGATTCCCTATTTAATAATGGTGTAGGAAAACCTGGCTAGTCATATGCAGAAAACCTG  
AAAATGGACACCTTCTTTATACCTTATGCAAAAATTAACCTCAGGATGGATTAAAGACTTAAATGTAAGACCTAAACCA  
TAAAACTCTAGAAGAAAACCTAGGCAATACCATTACAGCATAGGCATGGGCAAGATTTTCATGACTAAAAACACCAAA  
AGCAATGGCAACAAAAGCCAAAATTTACAAATGGGATCTAATTAACCTAAAGAGCTTCTGCACAGCAAAAGAACTATC  
ATCAGAGTGAACAGGCAACCTACAGTGGGAGAAAGTGTGCAATCTATTACCTGACAAAGGCTATCTCCAGAATC  
TACAAAGAAATTAACAAGTTTGCAAGGTAAAAAACACCTCATCAAAAAGTGGGTGAAGGATAAAAAACAGACACTTCT  
CAAAGAAGACATTTATGGAGCCAACAAACATATGAAAAAAGCTCTTCATCACTGGTCATTAGAGAAATGCAAAATCAA  
ACCACAACGAGATACCATCTCATGCCAGTTAGAATAATGATCATTAAAAAGTCAGGAAACAACAGATGCTGGAGAGGAT  
GTGGAGAAACAGGAACACTTTTACACTGTTGGTGGGAGTGTAAATTAGTTAAACCATTTGTGCAAGACAGTGTGGCAATT  
CCTCAAGGATCTAGAACAAGAAAATACCATTGACCCAGCAATCCCATAACTGGGTATATACCCAAAGGATTATAAATCA  
TTCAACTATAAAGACACATGCACACGTATGTTTATTGACGACTGTTTCAATAGCAAAGACTTGAACCAACACAAAT  
GCCCAACCAAGGATAGACTGGATAAAGAAAATGTGGCACATATACACCATGGAATACTATGCAGCCATAAAAAGGATGAG  
TTCATGTCCTTTGCAGGGACATGGATGAAGCTGGAAACCATCATTCTCAGCAAACACAAGAACAGAAAACCAAACTG  
CATATTCTCACTCATATGTGGGAGTTGAACAATGAGAACACATGGACACAGGGAGGGGAACATCACACACTGGGGACTG  
TCGAGGGGTGGGGGGCTGTGGGAGGGATAGCATTAGGAGAAAATACCTAATATAGATGATGGGTTGATGTGTAGCAA  
ACCACCATGGCATGTGTATACCTATGTAACAAACCTGCACGTTCTGCACATGTATCTCAGAACTTAAAGTATAATAAAA  
ACTCAAACAGCTCTACATTGTTATTTTAAAACTTCAATTTACTTGCTAAGAATTATCTTTTTTTTTTTCATTCTCTC  
TTCATTCTCTCACCAGCAATGGCATTGTTGGTTTTTTTAAAGCCACTTTAAAGACATTGAAAATAATACCTGTTTGT  
TTTACTTCTATTCTTATTACATTCTTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT  
ATTCCAGACTTCTCTATTCTTTCATGTATTTAGAATACATTTTTCAAAATTCCTAGGCTGAGGTATTATAAATTTGCC  
AAATTACCTTTCAAATGTATTTACCATCCCTGTATTACTCAGTACAAAAATTTGATTTTTTGGAGACATATTTGTACA  
TATTTATGGGATACATGTAGTATTTTGTACATGCACAGAACATGTAATGATCAAGTCAGGCTATTTGGGCTATTTCATC  
ACCTCCATTATTGATTATACCTATATGTTGAGACATCTTAAGTCTCTTTTATAGTAAGTTGAAACATATAATACTA

Fig. 6 353

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TACTATAGTCACCCTACTCTGTTATTGCATATTAGAATTTTTCTTCTGTGTGTTGTACCCATTAACCAACCTCTAC  
TTCATTACCCCCCACCACCCACACACCCTTCCAATCCTCTGGTGTCTATCATTCTATTCTTCTACTTCCATAAGATCCA  
CTTTTTTAGCTCTTACATATGAGTGAGAACATGTGATATTCTTCTTCTGTGACTGGCTTATGTCACTTAAGATAATGA  
CCCTTCAGTTCTATCCAAGTTGTCTGTAATGCCATCATGTTAGTCTTGTATTATGGCTGAATAGTATTCATTGTGTATA  
TATATATATTCTTTAACCATTATCCATGATGGATACTTACGTTGATTCTTATCTTTGCAATTGTGAATGGTGTGCA  
ATAAACATGGGCTGCAGGTATTCCTTTGATATATTAATTTCTTTTCTGATAAAATACTAGTTAGATTACTGGACTG  
TATGGTAGCTGTTTTAGTTTTTTGAGAAATCTCCATACTGTTTTTCCAAAATGGCTGTACTAGTTTACATTCCCACCAA  
CTCCCACCAACAAGAATTCCTTTTTTCTGCATCTCACCAGCATCTATATTCGTCTTCATCTTCTCCTTCTCCTTCT  
TTGACAGGGTCTTGCTCTGTTGCCTGTTTTCCAGGCTGAAGAACAGTGGTGATTACAGGTGCAATCAGGATGCACTGC  
AGCCTTGAACCTTAGCCTTAAGCAATACTCCTGCCTCAGCCTCATGCGTAGCTGAGACTACAGGCATCAGACTTTTGT  
CTTTTTTAGTAATAGTCATTTTAACTGGAGTATGATGCTATCTCATTGTGATTTTAAATTGCACTTTCCCGATGATTACT  
GATGTTGAGCATTTTTTAAATAGCCATTTGTCTTTTTTGGAGAAATATCTATTCTATGTCCTTTGCCCCATTTTTCTTCT  
TAGGCAGAGTCTCATTCTGTTGCTCAAACCTGGAGTGCAGTGGTGAATCGTGGCTCACAGCAACTCTGCTCTCCTAGGC  
TCAAGCAATCTCCTGCCTCCCTCCCGAGTGGCTGGGATTACAGGCGCCACCACCATGCCAGCTAATTTTTGTATT  
TTAGTAGAGACGGGGTTTACCATTGTTGGCCAGGCTGGTCTCAAACCTCTGTTTCAAGTGATCCACCTGCCCTCAGCCT  
CCCACAGTCTGGGATTACAGGTGTAAGCCACTGCACCTGGCCCTTACCCACTTTTTAGTAGGATGATTTGTGGTCTT  
TTACTGTTGAGTTGTTTGGTTCTTGTATATTCTGGATACTAGTCCCTTGTGGATAAATATCTTGTAAATATTTTCT  
CCCATTCAACAAGCTGTATCTTCACTCTGTTGGTTCTTGTGTAGAAGAATTTTAGTTTAAATATAGTCCCATTTGTCT  
ATTTTTCTTTTTGGTGCCTGTGATCTAGAGATCTTAGCTATAAAATCTTGGTCAGACTGATGTCCTGATTTGTTTTCC  
CTATGTTTTCTTGTAGTAGTTTCAATTTTTGGGTCTTATGTTTAAAGTCTTAACTGATTTGAGTTGATTTTTGTACAGG  
GTGAGAGATGGGTCCAGTTTTCTTCTGTCATATGATATCCAGTTTTTCTATTCCATTAGTGAAGAAAGTGTCT  
TTCCTCAGTGTATATACTTGGCACCTTTATAGAAAATCAGTTGGTGGTAAATGTGGTATATGCTGGCATCAGTGTAGT  
GTGTCCAGGCGGGCTGATCTGGGGGCTTCCAGTCAGCTTGCTGAGGTGCTGGCAATGGCAGCTGTGGGCCAGGTGGATG  
GGCAGGTCCATAGGCCCTGGGCATCAGGCATGGTGTGGGTGATGGCAGTTGAGTGGCAGGACAATCCTCTGGTACCCA  
AGTAGTCCCAACTGATTTTTCAAGGTGGCTGCAGGCCATTTCCAGGCCACAGGTGGTTCATGTCTGTGGGTGGGGGT  
GTATGCTGGCTGTGATGGTAGTGGCAGGTGGGTGAACCCATCTCCAGGCCCTCAGGATGAGTGTCTGAGGCGCAACAG  
GAATAGATGGGGCTGAGCAATCCCCAGGCCCTGCATGGGCACTAGGGAGAAGGGAGACAGAGGTGAGCCTCAGGCCCC  
CCGATGGTATATATAGGCATAGCTATGGTAGGCAGGGCATGGTGAATTCAGGCCCTCAGTGAATGCTTGGATGGG  
AGGACCAGCAGCTACACCCTAGCCATGTTGCTGGGGTGTCTTTCATTGGCAGAAGCCTTAGGAGGGCCACTGGGAGCAC  
ACACTTTGGCCCCAGGTGGTAGTTGCTGGTGGGGTAGCCTGTTCTCAGGGTGTCTTAAATGTACGGTACCCTGCTGAT  
GGGGATGGTGGGTAGCTTCCAGTGGCCCCACATTGGATATGGAGGCAGCAGCCAGCAGCAGGGTCTGCGTTAGGG  
GGAGGTCAATGGGGCTCAAGGAATCTGGAGTTGCAAGGTCTGTGGGGTCCCAGGGTAGGATGCACTGCTGGGCTTTC  
AAAATGGTACCTTGTGGAGTGCCTTAAGAGTGGGGTAAGAGGGAGGGTGGGTGGGGTAGGATGCACTGCTGGGCTTTC  
ATGAAGCAATGCCATCATGGGGTCTCCAGCCAGTGCCTATGTCTTAGCAATTCATTCTTTGCGCTCCTGGCATTCTCA  
AATGTTTTGTAGATGCCTTCTTGTAGCAGCCAGTCTCGTCCCTTTTCTTGAAGTCAATGAGCATCAAATGTGTTCAAGGA  
TTCATGAAATAAATCTGACAATAATTAGTATTTTTTATAGGAATTGGAACATGGTTTATTGAGTATACCGCAGTGT  
GTCAGCTCTAGAATTTACGAAGAAGAGGAAGAGGAGAACAAGTTTGAATCCTGTGAACGTTTTCTCTTTTTTCTCAGGG  
CTTGTGTGGGTCAAAGGACTCTCCAGTGGCTAGGATTGCAGGAGTCCATGGTAGGAAGGTGGGCCACTGGGGGCTACTC  
ACCTACTCTTCTCTCATTAGGGAGCCCCCTCCAGACTCCCTGCTAATCCAGCTGAGCAGGCTACTTCACTTTCTCTC  
TTGTTTTTCTGCTAGGTGTCACTTCCGTGTTGAATCCAGCCTTCTCTTCTAGGTGATCTATTTTTTATTTTACAGTT  
AGAAATATAAGTGCAGAGAAGTTAAACAGCAAATCTGTGGCTTCCAAAGTGGGCAAGCAGTTTCTAGCCTATGTTGG  
CTGAGTTTTGACCAAGCCTCTGATATGCATACATATATACATGTTTCTGTCAGTGTACTTAAACATTTTTTATTTCC  
ATGTTTAAAGGCTAGTTGAATAGGGGTGAACACAGAAAATCTAGCAATTCATTCTTTGCACTCCTGGCATTCTCAAATG  
TTTTGTAGATGCCTTCTTGTAGCAGCCAGTCTCGTCCCTTTTCTTGAAGTCAATGAGCATCAAATGTGTTTCAAGATTCA  
TGAAATAATTCTGACAATAATTAGTATTTTTTATAGGAATTGGAACATGGTTTATTGAGTATACCCAGTGTGTTGCA  
GCTCTAGAATTTACGAAGAAGAGGAAGAGGAGAACAAGTTTGAATCCTGTGAACATTTTCTTTTTTCTATAATTTACG  
CATATGCTAACAAGCAGCTAGTTTCAAACACAACTTACCTTGACAGGAAGTCTCAGTGTGAGAAATGAGATGTAGTCT  
CCTCTCTCCCCACATAGCCCTAGGGTTATTCAAGGATGAAGGAGAAGAAAAACATACCCAAGAGCATTTTATAATTCCA  
TCCTTCTCTTCTGTTATGCTAAGGTTACTAGTACCATGACCTATGTGAACCTCGTTTTTCTTGAATAAGAAGAATAAAGC  
GTTCCGTCCATCAAGGAAGACCTCAAGAGAAATTCAGGTTTCAAGGTTCTCATGGTACAAGAGCCAAGTGTCTTCTCTG  
ATCATTCCCAGGCCTGCTTTTGTATCTGAGCAGTGGCTTTCAAAAATATGCTGATGAGATTGCTCTCTCACTTAAGAAC  
TTAAGAAAGAGTTGAAGTTCTTCAATGTATATCCCCAGCCTGAACTTGTCTTGGAGGAAGATTGTAGTAGTAATGAAG  
GGTGACAGTAACCTAAGGGTGAAGAATGTAGAGAGATTTTTCCCAAGAGCAATCCAAGATACTGCTTGAACATCCGGG  
GTCCACTGACATGCCCCCTGGACTCCAGGAGAAATCTGGAATGTCTGGACCTGCAATGAGACACACCCAGCTTCAAAT  
GTGTCACTCTGGGCATATTTCTTAATCTGAGCTCAATTTCTTTCTTGTGAAGAGTCAATTACACATGGCTGTTTTATT  
ACTAATTCGTTTTTAAATTAAGAAATAAATTTGTAGGAGTAATATAGTTACATTGTTTACAAGTCAAATCTTACAT  
GGCTCATTTCCATCCATTTCTGATGTGTACCTTCTGGTATTTATTAGAATTTGCTTTAGACTTTCTGTTGCTCACC  
TCACAGTTCTGTGTCTATCTTAGTTCTTTCTGTTTTTGGTCTTTTATGCGAGAGGTTTTCTCATTGTCTGATA  
ATCCTTGGCAGTCAGTTCTGATTGAAGAGTTAGACATTAGAAAGCAAGTGAAATCCTGTGTGTGTACAAGGTTTGT  
GACTGGAAGCTTCATGGGGATATTCTTGTCTGGACATTTCACTGAAGGACATCCAAAACCTGTTGCCGTTTTTAGAT

Fig. 6. 355

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TTTTTTCTTGGATTGTTGGTTTTCTCTGGTGATCTTACTCCAATCTCTTGGTGCCATAATTCTACCAGCTGAGTATGA  
GAAGGAGCTGGGGTTTTCTCAATGCAGAAATATGTACTTGGTTCTAATATGGTAGTCTGGTTCTAATATTGTAGCCTTTTT  
CTCAGCAATGGTTGCCACATCTGAGTCTGAATCCCTTTGGAATCAGCCTCTCCAGAGGGTGTATGTTTAGAACCGGCG  
TGAGTGAAGGTAGTCATCCAATGACATGAGGTGGGTGAAAATATTTAACTGCTTTATTTATAAATTTTCAACTGACC  
CTCCTGTTTTTGAACCCACCAGTGTCCCACCTCCATAAGTCCCTGGATCCTCAATTTTCCAAGTCTTCTCTGGAATTC  
TATGGAGTAAATTAGCTTACTGATGCATTTCCCTTACTTGCCTTAGGTTTCTGCTCACTCTGTTCCCAAGTCAATTATG  
ACCTACCTGGCTGCTTCCAGTTTCTGAAATGTTGTGTGTGCTGAGCTTCTTTTCCATTGCTTGTCTGCTGCAAGCTATGC  
CATTTTAAAAAATTCTTTTGTCTGCTGTTTTTGTGGAGAAATAGAAAAATATGTACATTCAATCCCCATGTTTAAAGTGA  
AGTCCCTCATAAAATTATATAGAAATTTATTAGAAATATATACACACATATGAATATAGATAGATATACACTCTCTTT  
TTTAGCATACATAGTGCCTGTTATTTAGCAGGTACTAAAAAATAATATGTATATGTATATACATGTAGCAGAAGGCTAA  
CAGGAACCTTAGATACACTCAGGAATATATGATAGCATGGAAGGTTGGAACGGTGGGCCCTGTGCACAATCAAGTCATGAG  
GACTTAGAAAAAGACGGAACCATGGCTGGGTGCGGAGGCTCATACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCCAG  
TGGATTACCTGAGGTCAGGAGTTGAGGACCACTTGGCCCAAGTGTAAACTCTGTCTCTTAAAAAATAAAGGAGGCT  
AAAAAATAAATAAATAAATTAGCCAGGCATAGTGGCAGGCGCCTGTAATCCCATCTACTCGGAGGCTGAGGCGGAGGT  
TGCTGTGAGCCAAGATCGCGCCATTGTCAGTCCAGCCTGGGCAACAAGAGCAAACTCAGTCTAAAAAATAAAGGAGG  
AAAAAGAAAGAAAGAAAGAGAAAAAGAAAAAGAGAACTGGCAGGATTGAGTAATTAAGCCAGAGTCAGAAGGAGAAG  
TACTTCTCAATACAGCATGGTATCTTCTGTTTTTGTAGACACGGCTCTACCCAGCTCAATTGATTTCATGCTGTGTGGGT  
GTATTTTGTTTTTTGTCTTTTTCAGACTTTGTCAACAGGAAGTAGGTGCCCATGTTGTTGATAGAAAAGTTTGTAA  
GTAGGACTGCACAGACTTGGTTTTGTTTTCAGCATTTGGCAATAATCAGTCTTTCTGCTTCAGCCTTCAGAGAGCCCCT  
TCATCATTTCTTTCTGGCATCCCTGTGATCATATGATTACATTAATCAGTGTAAACAACAGCTACTTAAAGAAGG  
CATGCCATTAAAGATATTGTTAATATCTCTACATTGCTTTTCAACATATGTAAAGCATTGAGTGAATCTT  
CTTAGGTGCTTTATATGTGAAATCTTACCAGTCAGCTGAGGAAGAAATGTATACGGCTTATCCCCAAAAATAAGATATT  
CCAACAAATAATGTTTATGAGAGCTGTTAATTTATGTTAAAAAATAAGCTATTAATAAATGTTTAAAGTAATTAAT  
TGGGAGCTTGATTGGCAGTAGGAATATTAAGAGGATTAGCTAGATAACTAATGTAGAAAATAATATAATTGTATTGAGT  
CAACAAAAGCTTATATAGATTTAATTACTATGATGATATTAGATTACTTCATAATTAGAATCTTTGTAGAATTGTTTTG  
GTATAATTGCATTACAACTCAAAAAGTAAGCTTAAAGAATGATATTTTAATTATTTAATTCCAGTAAGTCATAAG  
TCTTATTTTTTGTGCTTATATGAGGCTGAATTAAGAGCAGTAATGCCATCTGACATTTCAAAATTTTCATGGAGAGAAATGT  
ATCTGAAATCATATACACCAAAAAGATAAGTAAATTTGATAGAAAAAATGAATGTATTTTAGCTGAGTTCTGACATG  
CATTTTATTACAAATCAAACTTCAGAACACAGAAGACAATTTCTTATTTTGAATTTATAGAGACTATTCTAATATTAA  
ATTGATTTTTTACAAGCTAGCAAATATTTCAATAGTTGAAGCTTCGGAGTTTCTCATTTATCTAAGCTATGTAATGCA  
TGCAAAGTTTCTTCTAGAAAACAAATTAAGTAAAGACATTTTCTGATTTGTATTTGGCTGTGTTATTTCCCAAGGCT  
GAAATTTAATAACATGCCATTTCGAAAGCCAGTAACCTCCTTAGTACAGGTGAACATCCCTAATCTGAAAATCTGAAATC  
TGAAATGCTCCAAATCTGAACTTTTCAATGCCAATCATGATGCCACAAGTAGAAAATTTTACACCTGATCTCATGTG  
ATGGGTACCAATCAAACTTTGCTTCATGAACAAAGCAGTAATTTTAAATATGTATAAAATTTATCTTACGGCTATTTGTTA  
GGAAATAAAAAATAAACTCTAAGTCCCTCCGACTGACCCAGCGGATCTCTCTTGGCCAGGGAACCCAGCAAACT  
TGAAGCTGAATTCATGGCTATGATGGGATGGGAGATTGGCATATGCCCTCATTATATCCCCACCCTCGCTAACAGTCTG  
TTAGGTTTTCTTCTTAAACAGCTAAACAGAAACAGCCTTTCCAAAAGACTACTAGCTTATCTTCCAGATACGTAACA  
GTCCAGATGAGATTCAATATGTTACCTTATTTTATGTAAGATGTAGATTTACCAGGCACCTAAAGTTTTTACAAGT  
ATGTAATCATTTGTCTCACTGCTGCCCCACCCTCCCTGCTTTTAAAGGAAAATATATAAATACTAAACCTCCTAAG  
AACCTCTTTGGAAAAAACAGTCACATGCTTCTGTGACTCTCTATTTTCCAGGTATGCCTTCAAGCTGGCTCAACAA  
AGCTTGATGCTTTGAACTTATGCTTCAATTAATCTTTCAGTTGTCTAGTGTAAAGGTGTATATGAAATAGAAAAGAA  
TTCTGTGTTTAGACAGTTCTCATCAGTGAGATATCTCATTTGTGATATATCCCAAAATATTTCAAAAATAAGAAATCCAAA  
ACACTTCCAGTTCCAAGCATTTAGGACAAGGGATATTCAATCTGTATCAGAAACATGCGATGGTGACCAAAAAGGAAT  
CTGGCAGCTGAAAATCTGAGTCACTATCATGTCAAATAAATAATTTTATACAACCTTAAAAAATAAAGCTGCACTAA  
TCATTAATTTATATTATTGTTAAATATCATACAGTAAATTTGATTTTTTTTCTTTTGTATGTACAGTTCTGAAACCA  
CCTTTGCAAAAATTGCAACACTGAGAAAATTTGACAGTGAAAGAAATTTGACCTAACCAACTCCACATTGCTTTTAAAC  
CTCCAAACTGCCCTTCACTTCTGGGCATGGCTAAGCTAAGCTTGGGAGAAATTTAGGTTATAGTTTAAATGATAATAG  
CTCTTTCCAAAATAAAGTGCCTTTGTAAACTAATGAAAGGCCACAGTTTACGAAGATAGGAGGGCCTGAATTTCTGC  
TAAGATATAGGCATAGTTAAGTGATTACCAGCCATTATTCCAGAGGTCACAAGATTTTCAACTTCTCTCAATTACTCCTG  
TAAATAACGTTACTATTGTAGAACCTAAAATTACTATTGTAGAACCTAAAGTTGACCTTTTGTAGATGTTCTGTGAGGCT  
TTTGCATTTCTGATGACMCCAGTGTCTGAACCACTGACTCCTCTGTGGACCCTTACTGGAAGCTGACTCAGGGCACAC  
GAGGACCATTTTCCACACCCATATGATTGCATCCCAACCAATCAGCAGCACCCTTCTTTGCCCCACCAATTAATCT  
TGAAAACTCTAGCCTCCAAATTTTTCAGGGAGGCTGATTTGGGTAAATAAATAAATCTGGTCTCCTGTTTAGCTGGCTC  
TATTTGTATTAAACTCTTTCTACTGCAATTGCCCTATCTTGATAAATCAGCTTTATCTGAGCAGCAGGCAAGAAGAA  
CCATTAGACAGTTACAGTTCTGTAAATTTTAAACAAACATTTGTCATGTAAACCACAGTACTAGTTCTCCATCCCAATT  
AGTTTACCACCTTAAAGCTTCTCTATAATACCTTACTCCATGACACTAGGAACAGCTACTAGTTCTCCATCCCAATT  
GTTTCATCTTTGAGAAGTTTATATAAATGGAATTTGTATAGTATAATCATCAATTTTAAATAAATAATTTTTCAGATGATT  
CACATTCCATAAGTGTACTCTATGATGCTGATTTTATCTTTAGCCTCAGCTTATGCCAACTATGCCCTTTCCATATAT  
GGCCAAATGTGTATTCAATATACCTTAACTGGGAGGATCAATTGAAAGTGTGTTTTTACTAACTCTATAACACAAA  
GGAATTCAGGATACCATAGGGATCAATCACTGATTATAACCAAAATGGGGAGAGCCAATTTCCCTGTCCCCAGAGA

Fig. 6.556



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CCTCTGGGCAGCTCTAGCTCCCTGAGGGASSCAGCACACAGTGGTCCCTTTCTCAGGAGATACCTGGGACACCAGGCA  
GTTCTCTTTAGACCTTCTGGGAGAGGGGTTCCAGCAGACGCTGGATAGGAGCAATAGCACTGAGAAGGGGTAGCAGAA  
GCAGCAGTGGCCTTGACTTGTGTATGTGCACATATGCAAGGAGCCCTTGCAGACTCCCTTCTCCCCAGGTAGTAGGGT  
CTTGCTTGCCCTTGCTAGTGGCAAGAACCTAAAGTTTAGTTGTTACTGTTAACGTAACCCCTATTTCTACTTTACAATGT  
GGTGAGGCCTTGGAACCCAGTTATATAAACATTTGTCTTAGTTCACTTAGGCTGCTTTAACAAAAATACCATAAAC  
TGGGTGGTTTATAACAACGAACATTTATTTCTCACAGTTCTGGAGGCTGAGAAGTCCGAGATCATGCTGCCAGCAGAT  
TCAGTGTCTGGTGTGGTCCCATCCCTACACAGTGAAGCAGCAAGGTCACCTTTCTGTGCCTGATTTATAAGGACATAA  
TCCCAGTCATGAGGACTCAACCCCTCATGACCTAAATCACTATCAAAAAGCCCCATCACCTTAGGGTTTAGGATTTCAAA  
ATATGAATTTGGGTAGACACAAACATTCAGACTGCAGCAACATTCATAGAGGCAACTCACCTACCAGGAGGCAACTT  
TTCATTCTGATGCCAGGTATGACAGACCTCAAATCTGTTACCGTCCCATGAACCAGGAATTATACAAAGGGTAGAGGG  
GCATAGCTCTGGGTGAAGAGCTGCACTCTGTTCACTCTGGGCTCTGTGTGGTGGTGTCCCAGGTAGTGTCACTCCAGCT  
GTTAAGTCCAGTGAGGCTCAGAAAGGTGATGTCACTTTGTTCAAATCTTCCAGCTAGTTTGTGGTGCAGATCATAACCAG  
ACCCTATGAAGTCTAATCATACCCAGTTCTGTAGGCTTTCTCTTCAATAGGTCCATTCCTATCTCTAAGTGCAGACCAC  
CTGCATCTCATAGCTTAACATATCAGTATGGAACCAACCATCTGTGTCACTATGACTTTACTATTTGTTCAAGAAAA  
TTCTTGTCCAGGAAGATAAGACGGGTGTAACAATAAATCACTATCAAAAAGTTTACTTCAGAAAATTTTCCATAAAGCAATTTAT  
TCAGATGATAGATTGCTCATTTGAAAAATAAACCCCTTTTCAGGACAAACAGATTCTCTCCAAGTCTAATAACTTGT  
TATCAAAGATCTATTTTTTTCAGGACTTCAAGACCCCTCTATCACAATGTCCACCAATTTCTAACTATAATATCATGAAC  
TTGCCGAATTTCCACCAGATTTCTTCTTGAAGGCTGACTTTAAACCACTTGAGCTCAGACCCCTTAATGTTTATAAA  
TATCTACCTGTGACCTCTCCCTTTTGAGAATTATAAGGACTTTTTCAAGGTGTTGCACCTCTTACTGCAGGTAAATAA  
ACTTAGCTTTGTTTGATCAATAGTTTATTCTGTATGGTCTTTCTTGAAGTGCAGCAATCAACAGTTCTGGGGCCTCAGTA  
GGATCACTCAATAATTTCTGCTCCTGCAGTTTAAAGACCTTAGCCCTAAACAGTGTGTCTTCTGAAGTTTGCCATTT  
GGAAGCCTCCCGCACTGCAGGTGTTAAGGTAAGTCTCTCATTTGATTTGAGTCCCGGTGCTTCCATAAAGCTCTTAA  
ATTGTTTATTTTTCTTCTAGAAATAAGAACTTTTAAAGAAATTCCTGGATTATCTGATCAGATTGAAAATGTTTATT  
CTTTGTGGAATGTTTTATTACTAGTAACATTACTCTTTTGTCTTTATCTTATTTGTTGTGAGTCTATGAGAAGAAG  
CTCACAGGAAGAAGACAGCCGTAGACCTGGCAATTTGTCTCAACTGGCTCAAAGATACAATAATATCAGCGGGTC  
TCATCAAACCTGGCATTCTTATAGAATAAACTTTGCTCTGGGTCACTTACTAATATCTTACAGAAAATTTATAGCAGCAG  
TTGTATATTGAGGGTGTGAATAAAACCACAGAGAAGCTTTTTGAAAAAATACTATGAATAGATTCTGCTTCTGGCC  
AAAATGAAGAACAGGGACAGATTTACTCTCCAGTAAACAGTGGAAAAAACAAGACACAATATTGAAAAATAAA  
AGATTTTCAAGACATCAGGCAATGAAGAATAGTGATCCAAGAAACAAGAAAGATGAATCTTATGTTTCCGCCACA  
GCTTACTGTCTGGAGTGAGTATCAAGACTGTGGTACAGAAAGGGAAAAACCAGATGGAACCCCTGCCATCTCCCTAAGTG  
GAGTCTGGGGAGGGCAAAGTGAGTAGAGTTTGCAAGGAAAGATATGGGAAAGGAGACAGCTGTGCAGAGAGAACTGG  
GGATCTGTACAGGGTCTTCAGCTGAGCATGAGTCAGCATATGCATGTGAGGAACTACCCATGACTGGGGAAAGAATCA  
GCTGGAATGATTACGGGGTATAGAATCCAGGGCTCAGAATCATTCTGTTTCTATAGGAAATGGGCATTGAGTAGCATA  
CTTGGAAGAATTTTGTCTCAGTCATGCAGTAACATAGAACTTAGACTAAATACTACTCTGATACCACATAATGAACT  
CAAAATAAGACCCAAAAGAATCAAACCTGTTTATAAGTAAGTGTGTTTCAAAATAAAGTTCAAGAATATTATAGAATA  
CCATCTAACAAAGCACAAAATTAAGATAAAGGGTCAAACCTATTTGCAAGTAATTTAAGTGTGTTCTAGAACAAGTTC  
AAAAGTATTTATAGAATAACAAAGGATCCAAAACTGTCCACAAAAATATGACCCATAATGAAGAGAAAAATCAGTCA  
TTTGAACTAACCCAGAAATGACAAAGATGATAGAATCGGCAAGACATTAGAAGAACTGTAATTGTACTTCGCATGTT  
CAAGAAGCCAGAGGAAAGACTGAACATGGTAAGCAGAAACATGGAAGATATAAAAAGACTAAAAATCAAACCTTTAGAGA  
TGAAACATTATGTGAGATGAAAAACACACTGAGTAGAATTAAAGGCAATTTGGAATTTTCAAGAGACTAGTGACTTTA  
AGAATTGAGAGATAAAAAGTACACAAATGAGAAACAGAAGTGTGTGAGTGTATGGGACAACCTTCAAACCTAATGCG  
TAAATTGCAGTCCCTGAAGGAAATGAGGGATATGTTGAAAAAATATTTGAAAAAATAATGGCCAAAAATCTCCCAA  
GTTTTATGAAAACACAGATTCAAGAAGGTCAACAAATTGCTTAAAAATAGAGAAAGTCTAATATTAGGATACAAAGTCT  
TGACCAGGTGTGGTGGTTCATGCCTGTAATCCAGCACTTTGGAAGGCCGAGTGGGAGGTGAATCACTTGAGGTGAGGA  
GTTCAAGACCAGCCTGGCCAACATGGTGAAGCCTGTCTTACTAAAAACACAAAAATTAGCCCGCGTGGTGGTGCAC  
ACTATAATCCCAGCTACTCGGGAGGCTGAGACAGGAGAATCACTTGAACACAGGAGGTGCAGGTTGCAGTGAGCCGAGA  
TTTGTGCATTGCACCTCAGCCCTGGGTGACAAAGTGAGACTCCGTCTTAAAAAGACAAAAACAAAAACAAAA  
AAATGGAAATAAGGTCTCAAATTAATAACTTCAGCTTACACCTTAAAAAAATTAGAAATATCATT

Fig. 6.357



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## Position of N ambiguity code

30102 R	150961 Y	290063 R
30205 Y	152214 R	290164 Y
30559 Y	154374 Y	290801 R
30699 K	157074 M	292925 R
34304 R	157272 R	293201 R
34516 K	160863 Y	293611 Y
34782 R	161195 R	295755 R
35697 K	162720 Y	296143 R
35810 Y	163290 R	296739 Y
36817 Y	165441 K	297107 W
40290 K	166462 R	297460 Y
40454 M	168136 Y	297895 R
49148 S	173481 R	298027 Y
55023 Y	173519 R	298152 N
58397 Y	175259 S	298153 N
58622 R	175603 Y	298585 S
58633 S	181225 Y	298605 K
74447 R	197941 M	298799 R
75896 K	198444 Y	299792 M
82244 S	198745 R	300815 Y
88456 W	221134 R	305880 R
88499 R	222532 K	306978 M
90688 S	224195 R	309436 Y
99035 R	224801 Y	309763 Y
102977 R	226923 R	313529 K
104552 Y	227254 Y	313971 R
104862 R	227460 S	317210 S
105225 Y	228326 K	318829 Y
111252 Y	228647 Y	410826 R
111781 Y	228831 R	
112118 M	230175 K	
118914 W	230288 Y	
120628 R	232201 M	
123312 R	232338 M	
123426 S	234332 R	
125304 M	235271 R	
128015 Y	263539 K	
128393 R	270257 R	
129360 Y	270458 Y	
129361 Y	270498 R	
131865 M	271159 Y	
132562 R	274150 Y	
135112 K	274353 M	
138281 Y	275602 Y	
138806 R	277422 M	
147700 Y	278146 R	
147715 R	286615 Y	
148161 Y	289348 S	
148236 Y	289425 R	
148606 K	289868 R	
	289979 Y	

Fig. 6.358

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<210> 2  
 <211> 809  
 <212> PRT  
 <213> Homo Sapien

<400> 2  
 Met Glu Ala Glu Gly Ser Ser Ala Pro Ala Arg Ala Gly Ser Gly Glu  
 1 5 10 15  
 Gly Ser Asp Ser Ala Gly Gly Ala Thr Leu Lys Ala Pro Lys His Leu  
 20 25 30  
 Trp Arg His Glu Gln His His Gln Tyr Pro Leu Arg Gln Pro Gln Phe  
 35 40 45  
 Arg Leu Leu His Pro His His His Leu Pro Pro Pro Pro Pro Ser  
 50 55 60  
 Pro Gln Pro Gln Pro Gln Cys Pro Leu Gln Pro Pro Pro Pro Pro  
 65 70 75 80  
 Leu Pro Pro Pro Pro Pro Pro Gly Ala Ala Arg Gly Arg Tyr Ala  
 85 90 95  
 Ser Ser Gly Ala Thr Gly Arg Val Arg His Arg Gly Tyr Ser Asp Thr  
 100 105 110  
 Glu Arg Tyr Leu Tyr Cys Arg Ala Met Asp Arg Thr Ser Tyr Ala Val  
 115 120 125  
 Glu Thr Gly His Arg Pro Gly Leu Lys Lys Ser Arg Met Ser Trp Pro  
 130 135 140  
 Ser Ser Phe Gln Gly Leu Arg Arg Phe Asp Val Asp Asn Gly Thr Ser  
 145 150 155 160  
 Ala Gly Arg Ser Pro Leu Asp Pro Met Thr Ser Pro Gly Ser Gly Leu  
 165 170 175  
 Ile Leu Gln Ala Asn Phe Val His Ser Gln Arg Arg Glu Ser Phe Leu  
 180 185 190  
 Tyr Arg Ser Asp Ser Asp Tyr Asp Leu Ser Pro Lys Ser Met Ser Arg  
 195 200 205  
 Asn Ser Ser Ile Ala Ser Asp Ile His Gly Asp Asp Leu Ile Val Thr  
 210 215 220  
 Pro Phe Ala Gln Val Leu Ala Ser Leu Arg Thr Val Arg Asn Asn Phe  
 225 230 235 240  
 Ala Ala Leu Thr Asn Leu Gln Asp Arg Ala Pro Ser Lys Arg Ser Pro  
 245 250 255  
 Met Cys Asn Gln Pro Ser Ile Asn Lys Ala Thr Ile Thr Glu Glu Ala  
 260 265 270  
 Tyr Gln Lys Leu Ala Ser Glu Thr Leu Glu Glu Leu Asp Trp Cys Leu  
 275 280 285  
 Asp Gln Leu Glu Thr Leu Gln Thr Arg His Ser Val Ser Glu Met Ala  
 290 295 300  
 Ser Asn Lys Phe Lys Arg Met Leu Asn Arg Glu Leu Thr His Leu Ser  
 305 310 315 320  
 Glu Met Ser Arg Ser Gly Asn Gln Val Ser Glu Phe Ile Ser Asn Thr  
 325 330 335  
 Phe Leu Asp Lys Gln His Glu Val Glu Ile Pro Ser Pro Thr Gln Lys  
 340 345 350  
 Glu Lys Glu Lys Lys Lys Arg Pro Met Ser Gln Ile Ser Gly Val Lys  
 355 360 365  
 Lys Leu Met His Ser Ser Ser Leu Thr Asn Ser Ser Ile Pro Arg Phe  
 370 375 380  
 Gly Val Lys Thr Glu Gln Glu Asp Val Leu Ala Lys Glu Leu Glu Asp  
 385 390 395 400  
 Val Asn Lys Trp Gly Leu His Val Phe Arg Ile Ala Glu Leu Ser Gly  
 405 410 415  
 Asn Arg Pro Leu Thr Val Ile Met His Thr Ile Phe Gln Glu Arg Asp  
 420 425 430  
 Leu Leu Lys Thr Phe Lys Ile Pro Val Asp Thr Leu Ile Thr Tyr Leu  
 435 440 445  
 Met Thr Leu Glu Asp His Tyr His Ala Asp Val Ala Tyr His Asn Asn  
 450 455 460

Fig. 7.1

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```

Ile His Ala Ala Asp Val Val Gln Ser Thr His Val Leu Leu Ser Thr
465                               470                               475                               480
Pro Ala Leu Glu Ala Val Phe Thr Asp Leu Glu Ile Leu Ala Ala Ile
                               485                               490                               495
Phe Ala Ser Ala Ile His Asp Val Asp His Pro Gly Val Ser Asn Gln
                               500                               505                               510
Phe Leu Ile Asn Thr Asn Ser Glu Leu Ala Leu Met Tyr Asn Asp Ser
                               515                               520                               525

Ser Val Leu Glu Asn His His Leu Ala Val Gly Phe Lys Leu Leu Gln
530                               535                               540
Glu Glu Asn Cys Asp Ile Phe Gln Asn Leu Thr Lys Lys Gln Arg Gln
545                               550                               555                               560
Ser Leu Arg Lys Met Val Ile Asp Ile Val Leu Ala Thr Asp Met Ser
                               565                               570                               575
Lys His Met Asn Leu Leu Ala Asp Leu Lys Thr Met Val Glu Thr Lys
                               580                               585                               590
Lys Val Thr Ser Ser Gly Val Leu Leu Leu Asp Asn Tyr Ser Asp Arg
                               595                               600                               605
Ile Gln Val Leu Gln Asn Met Val His Cys Ala Asp Leu Ser Asn Pro
610                               615                               620
Thr Lys Pro Leu Gln Leu Tyr Arg Gln Trp Thr Asp Arg Ile Met Glu
625                               630                               635                               640
Glu Phe Phe Arg Gln Gly Asp Arg Glu Arg Glu Arg Gly Met Glu Ile
                               645                               650                               655
Ser Pro Met Cys Asp Lys His Asn Ala Ser Val Glu Lys Ser Gln Val
660                               665                               670
Gly Phe Ile Asp Tyr Ile Val His Pro Leu Trp Glu Thr Trp Ala Asp
675                               680                               685
Leu Val His Pro Asp Ala Gln Asp Ile Leu Asp Thr Leu Glu Asp Asn
690                               695                               700
Arg Glu Trp Tyr Gln Ser Thr Ile Pro Gln Ser Pro Ser Pro Ala Pro
705                               710                               715                               720
Asp Asp Pro Glu Glu Gly Arg Gln Gly Gln Thr Glu Lys Phe Gln Phe
725                               730                               735
Glu Leu Thr Leu Glu Glu Asp Gly Glu Ser Asp Thr Glu Lys Asp Ser
740                               745                               750
Gly Ser Gln Val Glu Glu Asp Thr Ser Cys Ser Asp Ser Lys Thr Leu
755                               760                               765
Cys Thr Gln Asp Ser Glu Ser Thr Glu Ile Pro Leu Asp Glu Gln Val
770                               775                               780
Glu Glu Glu Ala Val Gly Glu Glu Glu Glu Ser Gln Pro Glu Ala Cys
785                               790                               795                               800
Val Ile Asp Asp Arg Ser Pro Asp Thr
805

```

<210> 3  
 <211> 150  
 <212> PRT  
 <213> Homo Sapien

<400> 3  
 Met Asp Arg Thr Ser Tyr Ala Val Glu Thr Gly His Arg Pro Gly Leu  
 1 5 10 15  
 Lys Lys Ser Arg Met Ser Trp Pro Ser Ser Phe Gln Gly Leu Arg Arg  
 20 25 30  
 Phe Asp Val Asp Asn Gly Thr Ser Ala Gly Arg Ser Pro Leu Asp Pro  
 35 40 45  
 Met Thr Ser Pro Gly Ser Gly Leu Ile Leu Gln Ala Asn Phe Val His  
 50 55 60  
 Ser Gln Arg Arg Glu Ser Phe Leu Tyr Arg Ser Asp Ser Asp Tyr Asp  
 65 70 75 80  
 Leu Ser Pro Lys Ser Met Ser Arg Asn Ser Ser Ile Ala Ser Asp Ile  
 85 90 95

Fig. 7.2

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His Gly Asp	Asp Leu Ile Val Thr	Pro Phe Ala Gln Val Leu Ala Ser
100	105	110
Leu Arg Thr	Val Arg Asn Asn Phe Ala Ala Leu Thr	Asn Leu Gln Asp
115	120	125
Arg Ala Pro	Ser Lys Arg Ser Pro Met Cys Asn Gln	Pro Ser Ile Asn
130	135	140
Lys Ala Thr	Ile Thr Val	
145	150	

<210> 4  
 <211> 745  
 <212> PRT  
 <213> Homo Sapien

<400> 4

Met Ala Gln	Gln Thr Ser Pro Asp Thr	Leu Thr Val Pro Glu Val Asp
1	5	10 15
Asn Pro His	Cys Pro Asn Pro Trp Leu Asn Glu Asp	Leu Val Lys Ser
20	25	30
Leu Arg Glu	Asn Leu Leu Gln His Glu Lys Ser Lys	Thr Ala Arg Lys
35	40	45
Ser Val Ser	Pro Lys Leu Ser Pro Val Ile Ser Pro	Arg Asn Ser Pro
50	55	60
Arg Leu Leu	Arg Arg Met Leu Leu Ser Ser Asn Ile	Pro Lys Gln Arg
65	70	75 80
Arg Phe Thr	Val Ala His Thr Cys Phe Asp Val Asp	Asn Gly Thr Ser
	85	90 95
Ala Gly Arg	Ser Pro Leu Asp Pro Met Thr Ser Pro	Gly Ser Gly Leu
	100	105 110
Ile Leu Gln	Ala Asn Phe Val His Ser Gln Arg Arg	Glu Ser Phe Leu
115	120	125
Tyr Arg Ser	Asp Ser Asp Tyr Asp Leu Ser Pro Lys Ser	Met Ser Arg
130	135	140
Asn Ser Ser	Ile Ala Ser Asp Ile His Gly Asp Asp	Leu Ile Val Thr
145	150	155 160
Pro Phe Ala	Gln Val Leu Ala Ser Leu Arg Thr Val	Arg Asn Asn Phe
	165	170 175
Ala Ala Leu	Thr Asn Leu Gln Asp Arg Ala Pro Ser Lys	Arg Ser Pro
	180	185 190
Met Cys Asn	Gln Pro Ser Ile Asn Lys Ala Thr Ile Thr	Glu Glu Ala
195	200	205
Tyr Gln Lys	Leu Ala Ser Glu Thr Leu Glu Glu Leu	Asp Trp Cys Leu
210	215	220
Asp Gln Leu	Glu Thr Leu Gln Thr Arg His Ser Val Ser	Glu Met Ala
225	230	235 240
Ser Asn Lys	Phe Lys Arg Met Leu Asn Arg Glu Leu Thr	His Leu Ser
	245	250 255
Glu Met Ser	Arg Ser Gly Asn Gln Val Ser Glu Phe Ile	Ser Asn Thr
	260	265 270
Phe Leu Asp	Lys Gln His Glu Val Glu Ile Pro Ser Pro	Thr Gln Lys
275	280	285
Glu Lys Glu	Lys Lys Lys Arg Pro Met Ser Gln Ile Ser	Gly Val Lys
290	295	300
Lys Leu Met	His Ser Ser Ser Leu Thr Asn Ser Ser	Ile Pro Arg Phe
305	310	315 320
Gly Val Lys	Thr Glu Gln Glu Asp Val Leu Ala Lys	Glu Leu Glu Asp
	325	330 335
Val Asn Lys	Trp Gly Leu His Val Phe Arg Ile Ala	Glu Leu Ser Gly
	340	345 350
Asn Arg Pro	Leu Thr Val Ile Met His Thr Ile Phe	Gln Glu Arg Asp
	355	360 365
Leu Leu Lys	Thr Phe Lys Ile Pro Val Asp Thr Leu	Ile Thr Tyr Leu
370	375	380

Fig. 7.3

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```

Met Thr Leu Glu Asp His Tyr His Ala Asp Val Ala Tyr His Asn Asn
385          390          395          400
Ile His Ala Ala Asp Val Val Gln Ser Thr His Val Leu Leu Ser Thr
          405          410          415
Pro Ala Leu Glu Ala Val Phe Thr Asp Leu Glu Ile Leu Ala Ala Ile
          420          425          430
Phe Ala Ser Ala Ile His Asp Val Asp His Pro Gly Val Ser Asn Gln
          435          440          445
Phe Leu Ile Asn Thr Asn Ser Glu Leu Ala Leu Met Tyr Asn Asp Ser
          450          455          460
Ser Val Leu Glu Asn His His Leu Ala Val Gly Phe Lys Leu Leu Gln
465          470          475          480
Glu Glu Asn Cys Asp Ile Phe Gln Asn Leu Thr Lys Lys Gln Arg Gln
          485          490          495
Ser Leu Arg Lys Met Val Ile Asp Ile Val Leu Ala Thr Asp Met Ser
          500          505          510
Lys His Met Asn Leu Leu Ala Asp Leu Lys Thr Met Val Glu Thr Lys
          515          520          525
Lys Val Thr Ser Ser Gly Val Leu Leu Leu Asp Asn Tyr Ser Asp Arg
          530          535          540
Ile Gln Val Leu Gln Asn Met Val His Cys Ala Asp Leu Ser Asn Pro
545          550          555          560
Thr Lys Pro Leu Gln Leu Tyr Arg Gln Trp Thr Asp Arg Ile Met Glu
          565          570          575
Glu Phe Phe Arg Gln Gly Asp Arg Glu Arg Glu Arg Gly Met Glu Ile
          580          585          590
Ser Pro Met Cys Asp Lys His Asn Ala Ser Val Glu Lys Ser Gln Val
          595          600          605
Gly Phe Ile Asp Tyr Ile Val His Pro Leu Trp Glu Thr Trp Ala Asp
          610          615          620
Leu Val His Pro Asp Ala Gln Asp Ile Leu Asp Thr Leu Glu Asp Asn
625          630          635          640
Arg Glu Trp Tyr Gln Ser Thr Ile Pro Gln Ser Pro Ser Pro Ala Pro
          645          650          655
Asp Asp Pro Glu Glu Gly Arg Gln Gly Gln Thr Glu Lys Phe Gln Phe
          660          665          670
Glu Leu Thr Leu Glu Glu Asp Gly Glu Ser Asp Thr Glu Lys Asp Ser
          675          680          685
Gly Ser Gln Val Glu Glu Asp Thr Ser Cys Ser Asp Ser Lys Thr Leu
          690          695          700
Cys Thr Gln Asp Ser Glu Ser Thr Glu Ile Pro Leu Asp Glu Gln Val
705          710          715          720
Glu Glu Glu Ala Val Gly Glu Glu Glu Glu Ser Gln Pro Glu Ala Cys
          725          730          735
Val Ile Asp Asp Arg Ser Pro Asp Thr
          740          745

```

<210> 5  
 <211> 215  
 <212> PRT  
 <213> Homo Sapien

<400> 5

```

Met Ala Gln Gln Thr Ser Pro Asp Thr Leu Thr Val Pro Glu Val Asp
1          5          10          15
Asn Pro His Cys Pro Asn Pro Trp Leu Asn Glu Asp Leu Val Lys Ser
          20          25          30
Leu Arg Glu Asn Leu Leu Gln His Glu Lys Ser Lys Thr Ala Arg Lys
          35          40          45
Ser Val Ser Pro Lys Leu Ser Pro Val Ile Ser Pro Arg Asn Ser Pro
          50          55          60
Arg Leu Leu Arg Arg Met Leu Leu Ser Ser Asn Ile Pro Lys Gln Arg
65          70          75          80

```

Fig. 7.4

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```

Arg Phe Thr Val Ala His Thr Cys Phe Asp Val Asp Asn Gly Thr Ser
      85          90          95
Ala Gly Arg Ser Pro Leu Asp Pro Met Thr Ser Pro Gly Ser Gly Leu
      100        105        110
Ile Leu Gln Ala Asn Phe Val His Ser Gln Arg Arg Glu Ser Phe Leu
      115        120        125
Tyr Arg Ser Asp Ser Asp Tyr Asp Leu Ser Pro Lys Ser Met Ser Arg
      130        135        140
Asn Ser Ser Ile Ala Ser Asp Ile His Gly Asp Asp Leu Ile Val Thr
      145        150        155        160
Pro Phe Ala Gln Val Leu Ala Ser Leu Arg Thr Val Arg Asn Asn Phe
      165        170        175
Ala Ala Leu Thr Asn Leu Gln Asp Arg Ala Pro Ser Lys Arg Ser Pro
      180        185        190
Met Cys Asn Gln Pro Ser Ile Asn Lys Ala Thr Ile Thr Gly Leu Tyr
      195        200        205
Asn Gly Ile Ile Ala Phe Leu
      210          215

```

<210> 6  
 <211> 673  
 <212> PRT  
 <213> Homo Sapien

```

<400> 6
Met Met His Val Asn Asn Phe Pro Phe Arg Arg His Ser Trp Ile Cys
  1      5          10          15
Phe Asp Val Asp Asn Gly Thr Ser Ala Gly Arg Ser Pro Leu Asp Pro
      20        25        30
Met Thr Ser Pro Gly Ser Gly Leu Ile Leu Gln Ala Asn Phe Val His
      35        40        45
Ser Gln Arg Arg Glu Ser Phe Leu Tyr Arg Ser Asp Ser Asp Tyr Asp
      50        55        60
Leu Ser Pro Lys Ser Met Ser Arg Asn Ser Ser Ile Ala Ser Asp Ile
      65        70        75        80
His Gly Asp Asp Leu Ile Val Thr Pro Phe Ala Gln Val Leu Ala Ser
      85        90        95
Leu Arg Thr Val Arg Asn Asn Phe Ala Ala Leu Thr Asn Leu Gln Asp
      100       105       110
Arg Ala Pro Ser Lys Arg Ser Pro Met Cys Asn Gln Pro Ser Ile Asn
      115       120       125
Lys Ala Thr Ile Thr Glu Glu Ala Tyr Gln Lys Leu Ala Ser Glu Thr
      130       135       140
Leu Glu Glu Leu Asp Trp Cys Leu Asp Gln Leu Glu Thr Leu Gln Thr
      145       150       155       160
Arg His Ser Val Ser Glu Met Ala Ser Asn Lys Phe Lys Arg Met Leu
      165       170       175

```

```

Asn Arg Glu Leu Thr His Leu Ser Glu Met Ser Arg Ser Gly Asn Gln
      180       185       190
Val Ser Glu Phe Ile Ser Asn Thr Phe Leu Asp Lys Gln His Glu Val
      195       200       205
Glu Ile Pro Ser Pro Thr Gln Lys Glu Lys Glu Lys Lys Arg Pro
      210       215       220
Met Ser Gln Ile Ser Gly Val Lys Lys Leu Met His Ser Ser Ser Leu
      225       230       235       240
Thr Asn Ser Ser Ile Pro Arg Phe Gly Val Lys Thr Glu Gln Glu Asp
      245       250       255
Val Leu Ala Lys Glu Leu Glu Asp Val Asn Lys Trp Gly Leu His Val
      260       265       270
Phe Arg Ile Ala Glu Ile Ser Gly Asn Arg Pro Leu Thr Val Ile Met
      275       280       285
His Thr Ile Phe Gln Glu Arg Asp Leu Leu Lys Thr Phe Lys Ile Pro
      290       295       300

```

Fig. 7.5

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Val	Asp	Thr	Leu	Ile	Thr	Tyr	Leu	Met	Thr	Leu	Glu	Asp	His	Tyr	His
305					310					315					320
Ala	Asp	Val	Ala	Tyr	His	Asn	Asn	Ile	His	Ala	Ala	Asp	Val	Val	Gln
			325						330					335	
Ser	Thr	His	Val	Leu	Leu	Ser	Thr	Pro	Ala	Leu	Glu	Ala	Val	Phe	Thr
			340					345					350		
Asp	Leu	Glu	Ile	Leu	Ala	Ala	Ile	Phe	Ala	Ser	Ala	Ile	His	Asp	Val
	355						360					365			
Asp	His	Pro	Gly	Val	Ser	Asn	Gln	Phe	Leu	Ile	Asn	Thr	Asn	Ser	Glu
	370					375					380				
Leu	Ala	Leu	Met	Tyr	Asn	Asp	Ser	Ser	Val	Leu	Glu	Asn	His	His	Leu
385					390					395					400
Ala	Val	Gly	Phe	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Cys	Asp	Ile	Phe	Gln
				405					410					415	
Asn	Leu	Thr	Lys	Lys	Gln	Arg	Gln	Ser	Leu	Arg	Lys	Met	Val	Ile	Asp
		420					425						430		
Ile	Val	Leu	Ala	Thr	Asp	Met	Ser	Lys	His	Met	Asn	Leu	Leu	Ala	Asp
	435					440						445			
Leu	Lys	Thr	Met	Val	Glu	Thr	Lys	Lys	Val	Thr	Ser	Ser	Gly	Val	Leu
	450					455					460				
Leu	Leu	Asp	Asn	Tyr	Ser	Asp	Arg	Ile	Gln	Val	Leu	Gln	Asn	Met	Val
465					470					475					480
His	Cys	Ala	Asp	Leu	Ser	Asn	Pro	Thr	Lys	Pro	Leu	Gln	Leu	Tyr	Arg
				485					490					495	
Gln	Trp	Thr	Asp	Arg	Ile	Met	Glu	Glu	Phe	Phe	Arg	Gln	Gly	Asp	Arg
		500					505						510		
Glu	Arg	Glu	Arg	Gly	Met	Glu	Ile	Ser	Pro	Met	Cys	Asp	Lys	His	Asn
	515					520						525			
Ala	Ser	Val	Glu	Lys	Ser	Gln	Val	Gly	Phe	Ile	Asp	Tyr	Ile	Val	His
	530					535					540				
Pro	Leu	Trp	Glu	Thr	Trp	Ala	Asp	Leu	Val	His	Pro	Asp	Ala	Gln	Asp
545					550					555					560
Ile	Leu	Asp	Thr	Leu	Glu	Asp	Asn	Arg	Glu	Trp	Tyr	Gln	Ser	Thr	Ile
				565					570					575	
Pro	Gln	Ser	Pro	Ser	Pro	Ala	Pro	Asp	Asp	Pro	Glu	Glu	Gly	Arg	Gln
		580						585					590		
Gly	Gln	Thr	Glu	Lys	Phe	Gln	Phe	Glu	Leu	Thr	Leu	Glu	Glu	Asp	Gly
	595					600						605			
Glu	Ser	Asp	Thr	Glu	Lys	Asp	Ser	Gly	Ser	Gln	Val	Glu	Glu	Asp	Thr
	610					615					620				
Ser	Cys	Ser	Asp	Ser	Lys	Thr	Leu	Cys	Thr	Gln	Asp	Ser	Glu	Ser	Thr
625					630					635					640
Glu	Ile	Pro	Leu	Asp	Glu	Gln	Val	Glu	Glu	Glu	Ala	Val	Gly	Glu	Glu
				645					650					655	
Glu	Glu	Ser	Gln	Pro	Glu	Ala	Cys	Val	Ile	Asp	Asp	Arg	Ser	Pro	Asp
			660					665					670		
Thr															

<210> 7  
 <211> 15  
 <212> PRT  
 <213> Homo Sapien

<400> 7  
 Met Met His Val Asn Asn Phe Pro Phe Arg Arg His Ser Trp Ile  
 1 5 10 15

<210> 8  
 <211> 687  
 <212> PRT  
 <213> Homo Sapien

<400> 8

Fig. 7.6



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Met	Ala	Phe	Val	Trp	Asp	Pro	Leu	Gly	Ala	Thr	Val	Pro	Gly	Pro	Ser
1				5				10					15		
Thr	Arg	Ala	Lys	Ser	Arg	Leu	Arg	Phe	Ser	Lys	Ser	Tyr	Ser	Phe	Asp
			20					25					30		
Val	Asp	Asn	Gly	Thr	Ser	Ala	Gly	Arg	Ser	Pro	Leu	Asp	Pro	Met	Thr
		35					40					45			
Ser	Pro	Gly	Ser	Gly	Leu	Ile	Leu	Gln	Ala	Asn	Phe	Val	His	Ser	Gln
	50					55				60					
Arg	Arg	Glu	Ser	Phe	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Tyr	Asp	Leu	Ser
65					70				75					80	
Pro	Lys	Ser	Met	Ser	Arg	Asn	Ser	Ser	Ile	Ala	Ser	Asp	Ile	His	Gly
				85					90					95	
Asp	Asp	Leu	Ile	Val	Thr	Pro	Phe	Ala	Gln	Val	Leu	Ala	Ser	Leu	Arg
		100						105					110		
Thr	Val	Arg	Asn	Asn	Phe	Ala	Ala	Leu	Thr	Asn	Leu	Gln	Asp	Arg	Ala
		115					120						125		
Pro	Ser	Lys	Arg	Ser	Pro	Met	Cys	Asn	Gln	Pro	Ser	Ile	Asn	Lys	Ala
		130				135				140					
Thr	Ile	Thr	Glu	Glu	Ala	Tyr	Gln	Lys	Leu	Ala	Ser	Glu	Thr	Leu	Glu
145					150				155					160	
Glu	Leu	Asp	Trp	Cys	Leu	Asp	Gln	Leu	Glu	Thr	Leu	Gln	Thr	Arg	His
				165					170					175	
Ser	Val	Ser	Glu	Met	Ala	Ser	Asn	Lys	Phe	Lys	Arg	Met	Leu	Asn	Arg
			180					185					190		
Glu	Leu	Thr	His	Leu	Ser	Glu	Met	Ser	Arg	Ser	Gly	Asn	Gln	Val	Ser
		195					200					205			
Glu	Phe	Ile	Ser	Asn	Thr	Phe	Leu	Asp	Lys	Gln	His	Glu	Val	Glu	Ile
	210					215					220				
Pro	Ser	Pro	Thr	Gln	Lys	Glu	Lys	Glu	Lys	Lys	Lys	Arg	Pro	Met	Ser
225					230					235				240	
Gln	Ile	Ser	Gly	Val	Lys	Lys	Leu	Met	His	Ser	Ser	Ser	Leu	Thr	Asn
				245					250					255	
Ser	Ser	Ile	Pro	Arg	Phe	Gly	Val	Lys	Thr	Glu	Gln	Glu	Asp	Val	Leu
			260					265					270		
Ala	Lys	Glu	Leu	Glu	Asp	Val	Asn	Lys	Trp	Gly	Leu	His	Val	Phe	Arg
		275					280					285			
Ile	Ala	Glu	Leu	Ser	Gly	Asn	Arg	Pro	Leu	Thr	Val	Ile	Met	His	Thr
	290					295					300				
Ile	Phe	Gln	Glu	Arg	Asp	Leu	Leu	Lys	Thr	Phe	Lys	Ile	Pro	Val	Asp
305					310					315				320	
Thr	Leu	Ile	Thr	Tyr	Leu	Met	Thr	Leu	Glu	Asp	His	Tyr	His	Ala	Asp
				325					330					335	
Val	Ala	Tyr	His	Asn	Asn	Ile	His	Ala	Ala	Asp	Val	Val	Gln	Ser	Thr
			340					345					350		
His	Val	Leu	Ser	Thr	Pro	Ala	Leu	Glu	Ala	Val	Phe	Thr	Asp	Leu	
		355					360				365				
Glu	Ile	Leu	Ala	Ala	Ile	Phe	Ala	Ser	Ala	Ile	His	Asp	Val	Asp	His
	370					375					380				
Pro	Gly	Val	Ser	Asn	Gln	Phe	Leu	Ile	Asn	Thr	Asn	Ser	Glu	Leu	Ala
385					390					395				400	
Leu	Met	Tyr	Asn	Asp	Ser	Ser	Val	Leu	Glu	Asn	His	His	Leu	Ala	Val
			405						410					415	
Gly	Phe	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Cys	Asp	Ile	Phe	Gln	Asn	Leu
			420					425					430		
Thr	Lys	Lys	Gln	Arg	Gln	Ser	Leu	Arg	Lys	Met	Val	Ile	Asp	Ile	Val
		435					440					445			
Leu	Ala	Thr	Asp	Met	Ser	Lys	His	Met	Asn	Leu	Leu	Ala	Asp	Leu	Lys
	450					455					460				
Thr	Met	Val	Glu	Thr	Lys	Lys	Val	Thr	Ser	Ser	Gly	Val	Leu	Leu	Leu
465					470					475				480	
Asp	Asn	Tyr	Ser	Asp	Arg	Ile	Gln	Val	Leu	Gln	Asn	Met	Val	His	Cys
				485					490					495	
Ala	Asp	Leu	Ser	Asn	Pro	Thr	Lys	Pro	Leu	Gln	Leu	Tyr	Arg	Gln	Trp
			500					505					510		
Thr	Asp	Arg	Ile	Met	Glu	Glu	Phe	Arg	Gln	Gly	Asp	Arg	Glu	Arg	
		515					520					525			

Fig. 7.7

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Glu Arg Gly Met Glu Ile Ser Pro Met Cys Asp Lys His Asn Ala Ser  
 530 535 540  
 Val Glu Lys Ser Gln Val Gly Phe Ile Asp Tyr Ile Val His Pro Leu  
 545 550 555 560  
 Trp Glu Thr Trp Ala Asp Leu Val His Pro Asp Ala Gln Asp Ile Leu  
 565 570 575  
 Asp Thr Leu Glu Asp Asn Arg Glu Trp Tyr Gln Ser Thr Ile Pro Gln  
 580 585 590  
 Ser Pro Ser Pro Ala Pro Asp Asp Pro Glu Glu Gly Arg Gln Gly Gln  
 595 600 605  
 Thr Glu Lys Phe Gln Phe Glu Leu Thr Leu Glu Glu Asp Gly Glu Ser  
 610 615 620  
 Asp Thr Glu Lys Asp Ser Gly Ser Gln Val Glu Glu Asp Thr Ser Cys  
 625 630 635 640  
 Ser Asp Ser Lys Thr Leu Cys Thr Gln Asp Ser Glu Ser Thr Glu Ile  
 645 650 655  
 Pro Leu Asp Glu Gln Val Glu Glu Glu Ala Val Gly Glu Glu Glu  
 660 665 670  
 Ser Gln Pro Glu Ala Cys Val Ile Asp Asp Arg Ser Pro Asp Thr  
 675 680 685

<210> 9  
 <211> 585  
 <212> PRT  
 <213> Homo Sapien

<400> 9  
 Met Lys Glu Gln Pro Ser Cys Ala Gly Thr Gly His Pro Ser Met Ala  
 1 5 10 15  
 Gly Tyr Gly Arg Met Ala Pro Phe Glu Leu Ala Ser Gly Pro Val Lys  
 20 25 30  
 Arg Leu Arg Thr Glu Ser Pro Phe Pro Cys Leu Phe Ala Glu Glu Ala  
 35 40 45  
 Tyr Gln Lys Leu Ala Ser Glu Thr Leu Glu Glu Leu Asp Trp Cys Leu  
 50 55 60  
 Asp Gln Leu Glu Thr Leu Gln Thr Arg His Ser Val Ser Glu Met Ala  
 65 70 75 80  
 Ser Asn Lys Phe Lys Arg Met Leu Asn Arg Glu Leu Thr His Leu Ser  
 85 90 95  
 Glu Met Ser Arg Ser Gly Asn Gln Val Ser Glu Phe Ile Ser Asn Thr  
 100 105 110  
 Phe Leu Asp Lys Gln His Glu Val Glu Ile Pro Ser Pro Thr Gln Lys  
 115 120 125  
 Glu Lys Glu Lys Lys Lys Arg Pro Met Ser Gln Ile Ser Gly Val Lys  
 130 135 140  
 Lys Leu Met His Ser Ser Ser Leu Thr Asn Ser Ser Ile Pro Arg Phe  
 145 150 155 160  
 Gly Val Lys Thr Glu Gln Glu Asp Val Leu Ala Lys Glu Leu Glu Asp  
 165 170 175  
 Val Asn Lys Trp Gly Leu His Val Phe Arg Ile Ala Glu Leu Ser Gly  
 180 185 190  
 Asn Arg Pro Leu Thr Val Ile Met His Thr Ile Phe Gln Glu Arg Asp  
 195 200 205  
 Leu Leu Lys Thr Phe Lys Ile Pro Val Asp Thr Leu Ile Thr Tyr Leu  
 210 215 220  
 Met Thr Leu Glu Asp His Tyr His Ala Asp Val Ala Tyr His Asn Asn  
 225 230 235 240  
 Ile His Ala Ala Asp Val Val Gln Ser Thr His Val Leu Leu Ser Thr  
 245 250 255  
 Pro Ala Leu Glu Ala Val Phe Thr Asp Leu Glu Ile Leu Ala Ala Ile  
 260 265 270  
 Phe Ala Ser Ala Ile His Asp Val Asp His Pro Gly Val Ser Asn Gln  
 275 280 285  
 Phe Leu Ile Asn Thr Asn Ser Glu Leu Ala Leu Met Tyr Asn Asp Ser  
 290 295 300

Fig. 7.8

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Ser Val Leu Glu Asn His His Leu Ala Val Gly Phe Lys Leu Leu Gln  
 305 310 315 320  
 Glu Glu Asn Cys Asp Ile Phe Gln Asn Leu Thr Lys Lys Gln Arg Gln  
 325 330 335  
 Ser Leu Arg Lys Met Val Ile Asp Ile Val Leu Ala Thr Asp Met Ser  
 340 345 350  
 Lys His Met Asn Leu Leu Ala Asp Leu Lys Thr Met Val Glu Thr Lys  
 355 360 365  
 Lys Val Thr Ser Ser Gly Val Leu Leu Leu Asp Asn Tyr Ser Asp Arg  
 370 375 380  
 Ile Gln Val Leu Gln Asn Met Val His Cys Ala Asp Leu Ser Asn Pro  
 385 390 395 400  
 Thr Lys Pro Leu Gln Leu Tyr Arg Gln Trp Thr Asp Arg Ile Met Glu  
 405 410 415  
 Glu Phe Phe Arg Gln Gly Asp Arg Glu Arg Glu Arg Gly Met Glu Ile  
 420 425 430  
 Ser Pro Met Cys Asp Lys His Asn Ala Ser Val Glu Lys Ser Gln Val  
 435 440 445  
 Gly Phe Ile Asp Tyr Ile Val His Pro Leu Trp Glu Thr Trp Ala Asp  
 450 455 460  
 Leu Val His Pro Asp Ala Gln Asp Ile Leu Asp Thr Leu Glu Asp Asn  
 465 470 475 480  
 Arg Glu Trp Tyr Gln Ser Thr Ile Pro Gln Ser Pro Ser Pro Ala Pro  
 485 490 495  
 Asp Asp Pro Glu Glu Gly Arg Gln Gly Gln Thr Glu Lys Phe Gln Phe  
 500 505 510  
 Glu Leu Thr Leu Glu Glu Asp Gly Glu Ser Asp Thr Glu Lys Asp Ser  
 515 520 525  
 Gly Ser Gln Val Glu Glu Asp Thr Ser Cys Ser Asp Ser Lys Thr Leu  
 530 535 540  
 Cys Thr Gln Asp Ser Glu Ser Thr Glu Ile Pro Leu Asp Glu Gln Val  
 545 550 555 560  
 Glu Glu Glu Ala Val Gly Glu Glu Glu Glu Ser Gln Pro Glu Ala Cys  
 565 570 575  
 Val Ile Asp Asp Arg Ser Pro Asp Thr  
 580 585

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 <211> 507  
 <212> PRT  
 <213> Homo Sapien

<400> 10  
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 1 5 10 15  
 Leu Ser Glu Met Ser Arg Ser Gly Asn Gln Val Ser Glu Phe Ile Ser  
 20 25 30  
 Asn Thr Phe Leu Asp Lys Gln His Glu Val Glu Ile Pro Ser Pro Thr  
 35 40 45  
 Gln Lys Glu Lys Glu Lys Lys Lys Arg Pro Met Ser Gln Ile Ser Gly  
 50 55 60  
 Val Lys Lys Leu Met His Ser Ser Ser Leu Thr Asn Ser Ser Ile Pro  
 65 70 75 80  
 Arg Phe Gly Val Lys Thr Glu Gln Glu Asp Val Leu Ala Lys Glu Leu  
 85 90 95  
 Glu Asp Val Asn Lys Trp Gly Leu His Val Phe Arg Ile Ala Glu Leu  
 100 105 110  
 Ser Gly Asn Arg Pro Leu Thr Val Ile Met His Thr Ile Phe Gln Glu  
 115 120 125  
 Arg Asp Leu Leu Lys Thr Phe Lys Ile Pro Val Asp Thr Leu Ile Thr  
 130 135 140  
 Tyr Leu Met Thr Leu Glu Asp His Tyr His Ala Asp Val Ala Tyr His  
 145 150 155 160  
 Asn Asn Ile His Ala Ala Asp Val Val Gln Ser Thr His Val Leu Leu  
 165 170 175

Fig. 7.9

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Ser Thr Pro Ala Leu Glu Ala Val Phe Thr Asp Leu Glu Ile Leu Ala  
 180 185 190  
 Ala Ile Phe Ala Ser Ala Ile His Asp Val Asp His Pro Gly Val Ser  
 195 200 205  
 Asn Gln Phe Leu Ile Asn Thr Asn Ser Glu Leu Ala Leu Met Tyr Asn  
 210 215 220  
 Asp Ser Ser Val Leu Glu Asn His His Leu Ala Val Gly Phe Lys Leu  
 225 230 235 240  
 Leu Gln Glu Glu Asn Cys Asp Ile Phe Gln Asn Leu Thr Lys Lys Gln  
 245 250 255  
 Arg Gln Ser Leu Arg Lys Met Val Ile Asp Ile Val Leu Ala Thr Asp  
 260 265 270  
  
 Met Ser Lys His Met Asn Leu Leu Ala Asp Leu Lys Thr Met Val Glu  
 275 280 285  
 Thr Lys Lys Val Thr Ser Ser Gly Val Leu Leu Leu Asp Asn Tyr Ser  
 290 295 300  
 Asp Arg Ile Gln Val Leu Gln Asn Met Val His Cys Ala Asp Leu Ser  
 305 310 315 320  
 Asn Pro Thr Lys Pro Leu Gln Leu Tyr Arg Gln Trp Thr Asp Arg Ile  
 325 330 335  
 Met Glu Glu Phe Phe Arg Gln Gly Asp Arg Glu Arg Glu Arg Gly Met  
 340 345 350  
 Glu Ile Ser Pro Met Cys Asp Lys His Asn Ala Ser Val Glu Lys Ser  
 355 360 365  
 Gln Val Gly Phe Ile Asp Tyr Ile Val His Pro Leu Trp Glu Thr Trp  
 370 375 380  
 Ala Asp Leu Val His Pro Asp Ala Gln Asp Ile Leu Asp Thr Leu Glu  
 385 390 395 400  
 Asp Asn Arg Glu Trp Tyr Gln Ser Thr Ile Pro Gln Ser Pro Ser Pro  
 405 410 415  
 Ala Pro Asp Asp Pro Glu Glu Gly Arg Gln Gly Gln Thr Glu Lys Phe  
 420 425 430  
 Gln Phe Glu Leu Thr Leu Glu Glu Asp Gly Glu Ser Asp Thr Glu Lys  
 435 440 445  
 Asp Ser Gly Ser Gln Val Glu Glu Asp Thr Ser Cys Ser Asp Ser Lys  
 450 455 460  
 Thr Leu Cys Thr Gln Asp Ser Glu Ser Thr Glu Ile Pro Leu Asp Glu  
 465 470 475 480  
 Gln Val Glu Glu Glu Ala Val Gly Glu Glu Glu Glu Ser Gln Pro Glu  
 485 490 495  
 Ala Cys Val Ile Asp Asp Arg Ser Pro Asp Thr  
 500 505

Fig. 7.10

Exon start Exon end		Isoform		Exons		142207 142328 4D7-1		444645 444775 4D7-2		641649 641878 4D7-3		736254 737226 4D4		861791 862202 4D5		1044051 1044190 4D3		1273404 1273709 4D6		1354347 1355128 4D8		1414511 1414702 LF1		1436943 1436979 LF2		1445217 1445290 LF3	
mRNA/cDNA variants		Isoform		Exons		142207 142328 4D7-1		444645 444775 4D7-2		641649 641878 4D7-3		736254 737226 4D4		861791 862202 4D5		1044051 1044190 4D3		1273404 1273709 4D6		1354347 1355128 4D8		1414511 1414702 LF1		1436943 1436979 LF2		1445217 1445290 LF3	
UO2882		4D4																									
L20969		4D5																									
AF012073		4D3																									
L20970		4D2																									
AF012074		4D3																									
U50159		4D2																									
U50158		4D1																									
U50157		4DN3																									
AJ250854		4D4																									
NM_006203		4DN1																									
AJ250852		4DN2																									
AJ250855		4DN3																									
BC008390																											
novel cDNA identified by deCODE																											
RT-PCR		4D6																									
CAP-RACE		4D7																									
CAP-RACE		4D8																									

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Fig. 8A

Fig. 8B

(19) World Intellectual Property  
Organization  
International Bureau



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Filed on 19 March 2001 (19.03.2001)  
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(IS).

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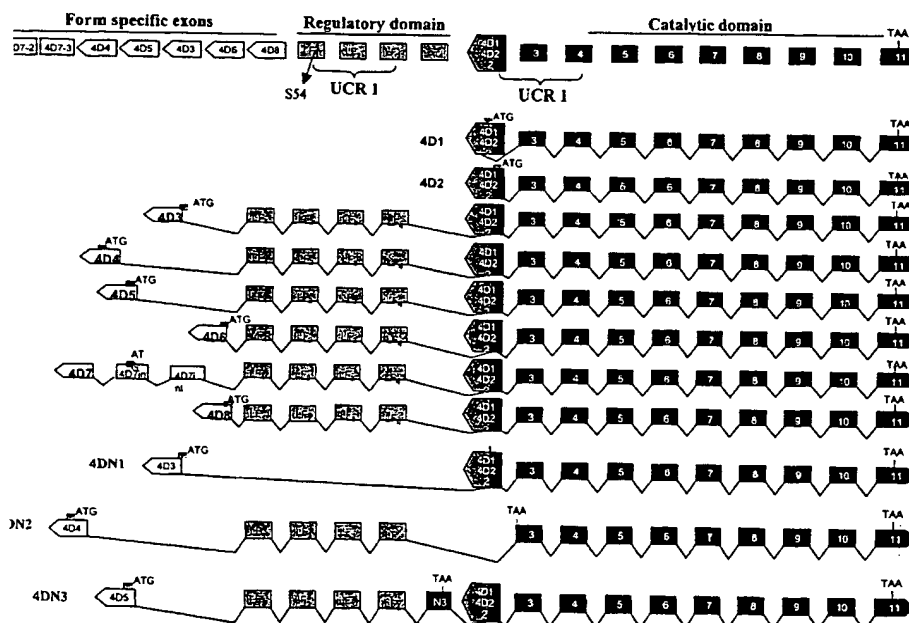
(75) Inventors/Applicants (for US only): **GRETARSDOT-  
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(81) Designated States (national): AE, AG, AL, AM, AT, AU,  
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,  
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GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,  
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European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,  
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent  
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
NE, SN, TD, TG).

[Continued on next page]

(54) Title: PHOSPHODIESTERASE 4D GENES RELATED TO HUMAN STROKE



(57) Abstract: A role of the human PDE4D gene in stroke is disclosed. New exons, referred to as 4D7-1, 4D7-2, 4D7-3, 4D6 and 4D have been identified. Moreover, three splice variants have been identified. Methods for diagnosis, predictions of clinical course and treatment for stroke using polymorphisms in the PDE4D gene are also disclosed.

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**Published:**

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(88) Date of publication of the international search report:  
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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/00565

## A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12Q A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GRAEME B BOLGER ET AL: "Characterization of five different proteins produced by alternatively spliced mRNAs from the human cAMP-specific phosphodiesterase PDE4D gene" BIOCHEMICAL JOURNAL, PORTLAND PRESS, LONDON, GB, vol. 328, 1997, pages 539-548, XP002150449 ISSN: 0264-6021 the whole document	1-18,22, 26,30, 32,34, 35,39, 40,42, 43,47-50
A	---	19-21,59
	-/--	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

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"Z" document member of the same patent family

Date of the actual completion of the international search

23 October 2002

Date of mailing of the international search report

05. 03. 2003

Name and mailing address of the ISA

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/00565

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	XAVIER MIRÓ ET AL: "Phosphodiesterases 4D and 7A splice variants in the response of HUVEC cells to TNF-alpha1." BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, vol. 274, 2000, pages 415-421, XP002902795 ACADEMIC PRESS ISSN: 0006-291X the whole document	1-18,22, 26,30, 32,34, 35,39, 40,42, 43,47-58
A	---	19,20,59
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A	---	19-21,59
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A	---	59
A	WO 00 77226 A (KAPELLER LIBERMANN ROSANA ;WHITE DAVID (US); ROBISON KEITH E (US);) 21 December 2000 (2000-12-21)  the whole document	1-22,26, 30,32, 34,35, 39,40, 42,43, 47-59
	-----	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IB 02/00565

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 19, 44-46  
because they relate to subject matter not required to be searched by this Authority, namely:  
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☒ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-59 (partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (1)) (July 1998)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-59 (partially)

Each sequence of SEQ ID 1-10 and 12 represent one invention.

2. Claims: 1-59 (partially)

Each sequence of SEQ ID 1-10 and 12 represent one invention.

3. Claims: 1-59 (partially)

Each sequence of SEQ ID 1-10 and 12 represent one invention.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## Continuation of Box I.1

Claims Nos.: 19, 44-46

Claims 19, 44-46 relate to methods of treatment of the human or animal body by surgery or by therapy / diagnostic methods practised on the human or animal body / Rule 39.1(iv). Nevertheless, a search has been executed for these claims. The search has been based on the alleged effects of the compounds/ compositions.

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## Continuation of Box I.2

Claims Nos.: 23-25, 27-29, 31, 33, 36-38, 41, 44-46 and parts of 40 and 42.

Claims 23-25, 27-29, 31, 33, 36-38, 41, 44-46 and parts of claims 40 and 42 relate to agents interacting with a polypeptide encoded by a phosphodiesterase 4D gene or the expression of this gene.

These claims could include known compounds e.g. known phosphodiesterase inhibitors. Moreover, the description does not give any example of such substance. Identification of agents with the claimed methods does not give the identified agents PER SE any unique properties and thus, the description lacks disclosure and the claim lacks support within the meaning of PCT Articles 5 and 6.

A meaningful search of claims 23-25, 27-29, 31, 33, 36-38, 41, 44-46 and parts of claims 40 and 42 is impossible and consequently, the claims have not been searched.

The following parts of claims 40 and 42 have been searched: A phosphodiesterase 4D gene PER SE; fragments, variants or derivatives is considered to be unclear, e.g. fragment could in its extreme be one single nucleotide.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/00565

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